

THE
PERIPLUS
OF THE
ERYTHRLEAN SEA.
PART THE FIRST.

CONTAINING,
AN ACCOUNT OF
THE NAVIGATION OF THE ANCIENTS,
FROM THE SEA OF SUEZ TO THE COAST OF ZANGUEBAR.
WITH DISSERTATIONS.

By WILLIAM VINCENT, D.D.

Fuimusque quæ institueram magnum opus est, et hercule res sunt difficiles ad explicandum et approbadis; nec tam possunt αριθμογενεσθαι quam videbatur.

CIC. AD ATTICUM, lib. ii. ep. 6.

I. O N D O N:

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THE KING.

With we contemplate the maritime power of Great Britain, raised under the auspices of Your Majesty to a preminence unexampled in the annals of mankind; we view with equal pleasure those not less useful though less splendid efforts, which, under Your Majesty's immediate patronage and direction, have advanced the limits of discovery to that

boundary which Nature has fixed as a barrier to the enterprize of man.

IT is due to the consummate abilities of the most experienced commanders, exercised under this patronage and direction, that a solution has been given to three of the greatest problems that concern the world which we inhabit; for it is now determined by a succession of voyages commenced and prosecuted by Your Majesty's command, that the Entrance into the Pacifick Ocean by a passage either on the North West or North East is impracticable, and that the Existence of a great Southern Continent had nothing but theory ~~for its~~ support. It has likewise been ascertained that the longest voyages are not detrimental to life

life or health; and it has been proved by the execution of Your Majesty's commands, that distant nations may be visited, not for the purpose of subjugation, but for the interchange of mutual benefits, and for promoting the general intercourse of mankind.

IN the prosecution of these great designs, if we have seen science advancing to perfection, it is still an object of interesting curiosity to turn our view back from the result to the origin, to trace navigation to its source, and discovery to its commencement.

THIS is the design of the Work which I have now the honour to present to Your

Majesty for protection ; its merits must be left to future decision ; but it is at least a tribute of gratitude offered to the patron of every science, in which the interests of navigation and geography are concerned. I have the honour to subscribe myself

YOUR MAJESTY's

Most faithful

and most devoted

Subject and Servant,

WILLIAM VINCENT.

P R E F A C E.

MUCH disquisition upon a brief narrative is the professed design of the following work; a work which has encreased under my hands far beyond my calculation or design, and which I now publish incomplete, because, from the various interruptions of an active life, whatever may be my wish and object, I cannot pledge myself to bring it to a conclusion.

SUCH encouragement as I had reason to expect has not been wanting to my former Labours. Popular reputation I neither courted or declined; emolument I neither coveted or disclaimed; but if the approbation of many excellent and learned men be an object of ambition, I have had my reward.

To the censures which I incurred, I am not insensible; but if censure be not illiberal it is the part of prudence to turn it rather to the purpose of correction than offence. One charge only I shall notice; and

that, not because it was unjust, but because it originated in a misapprehension of my design. In the few instances where I ventured upon etymology, I did not expect the severity which I have experienced. I had disclaimed all pretensions to oriental learning; I had hazarded my own conjectures, in order to excite attention and curiosity in others; I had never rested a single deduction of importance on any imaginary interpretation of my own, and still I have had the mortification to find that all my precautions were ineffectual: I thought that in treating of oriental questions, the conjectures of a classical man, even if erroneous, might have been pardonable; but I was mistaken: I have seen my error, and I shall avoid a repetition of the offence. Nothing etymological will occur in the following pages, but what will be proposed merely as matter of inquiry, or what can be referred to oriental authority for support.

IN the Voyage of Nearchus I traced the intercourse with India to its source, a subject, as it has been called, “barren, but important:” and I now prosecute the same inquiry down to its completion, by the discoveries

of Gama, under difficulties still more discouraging to an Author. A work, relieved neither by the incidents of a voyage, or the occurrences of a journal, varied by no personal dangers or escapes, animated by no personal exertion or ability, however it may abound in information, can presume but little upon its powers of attraction. Fidelity, labour, and research, it is true, have their share of merit; but the approbation which they claim must be derived from those who can appreciate the value of talents which, though common to all, are exercised only by the few.

Research, indeed, affords a pleasure peculiar to itself; it presents an idea of discovery to the imagination of the inquirer; an intellectual pleasure, in which he flatters himself others will be desirous to participate; and which, if he can communicate with satisfaction proportionate to his own, publication is not merely the indulgence of a propensity, but the exercise of a social duty.

I HAVE to return my thanks a second time to Mr. Dalrymple, for his kindness in suffering me to copy two
of

of his charts; to Sir William Ouseley, for favouring me with the sheets of Ebn Haukel as they came from the press; to Dr. Charles Burney of Greenwich, and to Captain Francklin of the Bengal Establishment. I have likewise been again more particularly obliged to the Bishop of Rochester for his assistance in correcting the position of Meroë; on which subject, more probably will appear upon a future occasion.

THE
PERIPLUS
OF THE
ERYTHREAN SEA

BOOK I.

PRELIMINARY DISQUISITIONS.

- I. *Introduction.* — II. *Account of the Periplus.* — III. *Homer.* — IV. *Herodotus.* — V. *Ctesias.* — VI. *Iambulus.* — VII. *Agatharchides.* — VIII. *Hippalus.* — IX. *Age of the Periplus.* — X. *Intercourse with India.*

I. **N**AVIGATION, perfected as it is at the present hour, opens all the maritime regions of the world to the knowledge of mankind; but in the early ages, personal intercourse was impracticable: the communication by sea was unexplored, and travelling by land was precluded by insecurity. The native commodities of one climate passed into another by intermediate agents, who were interested in little beyond the profits of the transit; and nations in a different hemisphere were known respectively, not by their history, but their produce.

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Such was the situation of Europe in regard to India; the produce of each was conveyed to the other by channels which were unknown to both; and the communication by land through Tartary or Persia, was as little understood, as the intercourse by the Indian Ocean. That both existed in some sense or other is undeniable; for the most ancient of all histories mentions commodities which are the native produce of India, and which if they were known, of necessity must have been conveyed. What the means of conveyance were by land, or on the north, is a subject which does not enter into the plan of the following work; but the transport by sea is a consideration of all others the most important; it is dependent on a discovery common to all the nations of the world: the dominion of the sea may pass from one people to another, but the communication itself is opened once for all; it can never be shut.

That the Arabians were the first navigators of the Indian Ocean, and the first carriers of Indian produce, is evident from all history, as far as history goes back; and antecedent to history, from analogy, from necessity, and from local situation; out of their hands this commerce was transferred to the Greeks of Egypt, and to the Romans¹ when masters of that country; upon the decline of the Roman power it reverted to the Arabians, and with them it would have remained, if no Gama had arisen to effect a change in the whole commercial system of the world at large.

It is the interval between the voyage of Nearchus and the discoveries of the Portuguese which I intend to examine in the follow-

¹ Perhaps never to the Romans, but to the Greeks of Egypt under the power of the Romans.

In this work; the basis which I assume is the Periplūs of the Erythræan Sea; and in commenting on this work, an opportunity will be given to introduce all the particulars connected with the general subject.

ACCOUNT OF THE PERIPLUS.

II. THE Periplūs of the Erythræan Sea is the title prefixed to a work which contains the best account of the commerce carried on from the Red Sea and the coast of Africa to the East Indies, during the time that Egypt was a province of the Roman empire.

This work was first edited from the press of Froben at Basle, in 1533, with a prefatory epistle by Gelenius; but from what manuscript I have never been able to discover; neither is it known whether any manuscript of it is now in existence. The edition of Stuckius at Zurich, in 1577, and Hudson in 1698, at Oxford, are both from the printed copy, which is notoriously incorrect, and their emendations remove few of the material difficulties^{*}; besides these, there is a translation in the collection of Ramusio, faithful indeed, as all his translations are, but without any attempt to amend the text, or any comment to explain it; he has prefixed a discourse however of considerable merit and much learning, which I have made use of wherever it could be of service, as I have also of the commentaries of Stuckius, Hudson, and Dodwell; but the author with whom I am most in harmony upon the whole,

* The two inexplicable difficulties are, 'Εντοπορευόμενοι, p. 9. and σὺν Ὀνίῳ λεγεῖσθαι, p. 7. See infra.

is Vossius, who in his edition of Pomponius Mela has touched upon some of these points, and I wish we had the ground of his opinion in detail.

The Erythræan Sea is an appellation given in the age of the author to the whole expanse of ocean reaching from the coast of Africa to the utmost boundary of ancient knowledge on the east; an appellation, in all appearance, deduced from their entrance into it by the straits of the Red Sea, styled Erythra³ by the Greeks, and not excluding the gulph of Persia, to which the fabulous history of a king Erythras is more peculiarly appropriate.

Who the author was, is by no means evident, but certainly not Arrian of Nicomedia, who wrote the history of Alexander, whose writings have been the subject of my meditations for many years, and whose name I should have been happy to prefix to the present work; he was a man of eminence by birth, rank, talents, and education, while the author before us has none of these qualities to boast; but veracity is a recommendation which will compensate for deficiency in any other respect: this praise is indisputably his due, and to display this in all its parts is the principal merit of the commentary I have undertaken.

³ We are warned against the connection of Erythra with Erythræan by Agatharchides, p. 4. Geog. Min. Hudson, Σάλμανος Ερυθραί, he says, signifies the Red Sea; Σάλμανος Ερυθραί, the sea of Erythras, is the ocean which takes its name from king Erythra, according to the Persian account. Salmasus and Hudson give little credit to Agatharchides for this intelligence. See note, ibid: both agree in supposing Edom, Red, to be the true etymology, the sea of Edom, or Esau, the Idumean Sea.

Agatharchides says, it is not from the colour of the sea, for it is not red, τὸ μὲν ἄντες τὸ χρυσότερος τὸ κλαῖσιν καρασκαλλός, οὐδέποτε (οὐ γάρ εἰσι ισχύει); this is well known, but it ought to be remembered that Im Suph of the Hebrews is the weedy sea; and Lobo asserts, that Sufo is a name still applied to a weed in this sea used for dyeing red; this is probably indeed not the source of the etymology, but it is not unworthy of notice.

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- Arrian of Nicomedia has left us the Paraplūs of Nearchus, and the Periplūs of the Euxine Sea, and was a name of celebrity to the early editors of Greek manuscripts, long before the work now under contemplation was known; it is not impossible, therefore, if the Periplūs of the Erythrēan Sea was found anonymous, that it was attributed to an author whose name on similar subjects was familiar. But if Arrian be the real name of the author now under contemplation, and not fictitious, he appears from internal evidence to have been a Greek, a native of Egypt, or a resident in that country, and a merchant of Alexandria: he manifestly sailed on board the fleet from Egypt, as far as the gulph of Cambay, if not farther; and, from circumstances that will appear hereafter, is prior to Arrian of Nicomēdia by little less than a century. His work has long been appreciated by geographers, and is worthy of high estimation as far as the author can be supposed personally to have visited the countries he describes; some scattered lights also occur even in regard to the most distant regions of the east, which are valuable as exhibiting the first dawn of information upon the subject.

Of this work no adequate idea could be formed by a translation; but a comparison of its contents with the knowledge of India, which we have obtained since Gama burst the barrier of discovery, cannot but be acceptable to those who value geography as a science, or delight in it as a picture of the world.

The Periplūs itself is divided into two distinct parts, one comprehending the coast of Africa from Myos Hormus to Rhapta; the other, commencing from the same point, includes the coast of Arabia, both within the Red Sea and on the ocean; and then passing

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passing over to Guzerat runs down the coast of Malabar to Ceylon.* It is the first part, containing the account of Africa, which I now present to the public; a work which, perhaps, I ought never to have undertaken, but which I hope to complete with the addition of the oriental part, (if blessed with a continuance of life and health,) by devoting to this purpose the few intervals which can be spared from the more important duties in which I am engaged. The whole will be comprehended in four books; the first consisting of preliminary matter, and the other three allotted respectively to Africa, Arabia, and India, the three different countries which form the subject matter of the *Periplūs* itself. In the execution of this design I shall encroach but little on the ground already occupied by Doctor Robertson; but to Harris, and his learned editor Doctor Campbell, I have many obligations. I follow the same arrangement in my consideration of the Greek authors, borrowing sometimes from their materials, but never bound by their decisions: where I am indebted I shall not be sparing of my acknowledgments; and where I dissent, sufficient reasons will be assigned. I could have wished for the company of such able guides farther on my journey; but I soon diverge from their track, and must explore my way like an Arab in the desert, by a few slight marks which have escaped the ravages of time and the desolation of war.

To a nation now mistress of those Indian territories which were known to Alexander only by report, and to the Greeks of Egypt only by the intervention of a commerce restricted to the coast, it may be deemed an object of high curiosity at least, if not of utility, to trace back the origin and progress of discovery, and to examine

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examine the minute and accidental causes which have led to all our knowledge of the east; causes, which have by slow and imperceptible degrees weakened all the great powers of Asia, which have dissolved the empires of Persia and Hindostan, and have reduced the Ottomans to a secondary rank; while Europe has arisen paramount in arts and arms, and Britain is the ruling power in India, from Ceylon to the Ganges:—a supremacy this, envied undoubtedly by our enemies, and reprobated by the advocates of our enemies. Anquetil du Perron and Bernoulli*, exclaim at the injustice of our conquests; but who ever asserted that conquest was founded upon justice? The Portuguese, the Hollanders, and the French were all intruders upon the natives, to the extent of their ability, as well as the British. India in no age since the irruptions of the Tartars and Mahomedans has known any power, but the power of the sword; and great as the usurpation of the Europeans may have been, it was originally founded in necessity. It is not my wish to justify the excess; but there are nations, with whom there can be no intercourse without a pledge for the security of the merchant. The Portuguese, upon their first arrival at Calicut, could not trade but by force: it was in consequence of this necessity, that all the Europeans demanded or extorted the liberty of erecting forts for their factories; and this privilege, once granted, led the way to every encroachment which ensued. I notice this, because the same danger produced the same effects from the beginning. It will appear from the Periplus, that the Arabians in that age had fortified their factories on the coast of Africa, and the Portuguese historians

* See Description de l'Inde, in three vols. by Bernoulli, Berlin 1787, vol. ii.

mention the same precaution used in the same country by the Arabs in the age of Gama. From this slender origin all the conquests of the Europeans in India have taken their rise, till they have grown into a consequence which it was impossible to foresee, and which it is now impossible to control. No nation can abandon its conquests without ruin; for it is not only positive subtraction from one scale, but preponderancy accumulated in the other. No power can be withdrawn from a single province, but that it would be occupied by a rival upon the instant. Nothing remains but to moderate an evil which cannot be removed, and to regulate the government by the interests of the governed. This imports the conquerors as much as the conquered; for it is a maxim never to be forgotten, that the Portuguese lost by their avarice the empire they had acquired by their valour; but of this too much:—our present business is not with the result of discovery, but its origin.

Voyages are now performed to the most distant regions of the world without any intervening difficulties but the ordinary hazard of the sea.—In the ancient world the case was very different: a voyage from Thessaly to the Phasis was an achievement which consecrated the fame of the adventurers by a memorial in the Heavens, and the passage from the Mediterranean into the Atlantic Ocean was to the Phenicians a secret of state.

The reality of the Argonautic expedition has been questioned; but if the primordial history of every nation but one is tinctured with the fabulous, and if from among the rest a choice is necessary to be made, it must be allowed that the traditions of Greece are less inconsistent than those of the more distant regions of the earth. Oriental learning is now employed in unravelling the mythology of

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India, and recommending it as containing the seeds of primeval history ; but hitherto we have seen nothing that should induce us to relinquish the authorities we have been used to respect, or to make us prefer the fables of the Hindoos or Guebres to the fables of the Greeks. Whatever difficulties may occur in the return of the Argonauts, their passage to Colchis is consistent ; it contains more real geography than has yet been discovered in any record of the Bramins or the Zendavesta, and is truth itself, both geographical and historical when compared with the portentous expedition of Ram¹ to Ceylon ; it is from considerations of this sort that we must still refer our first knowledge of India to Grecian sources, rather than to any other ; for whatever the contents of the Indian records may finally be found to have preserved, the first mention of India that we have is from Greece, and to the historians of Greece we must still refer for the commencement of our inquiries ; their knowledge of the country was indeed imperfect, even in their latest accounts, but still their very earliest shew that India had been heard of, or some country like India in the east ; a glimmering towards-day is discoverable in Homer, Herodotus, and Ctēsias ; obscure indeed, as all knowledge of this sort was, previous to Alexander, but yet sufficient to prove that India was always an object of curiosity and inquiry.

H O M E R.

III. THE father of poetry is naturally the first object of our regard, his writings contain the history, the manners, and antiquities

¹ See Maurice's History of Hindostan, vol. ii. p. 243.

of his country; and though his information upon the point proposed may be problematical, still nothing that he has touched is unworthy of attention. When he conducts Neptune⁶ into Ethiopia, he seems to place him in the centre between two nations both black, but both perfectly distinguished from each other; and he adds, that they lived at the opposite extremities of the world east and west; let us then place the deity in Ethiopia above the Cataracts of Syêne, and let a line be drawn east and west, at right angles with the Nile; will it not immediately appear that this line cuts the coast of Nigritia on the west, and the peninsula of India on the east? and though it may be deemed⁷ enthusiasm to assert, that Homer considered these as his two extremities, and placed his two Ethiopick nations in these tracts, which are their actual residence at present, still it is not too much to say, that the centre he has assumed is the most proper of all others, that the distant Ethiopians⁸ to the east of it, are Indians, and to the west, Negroes. These two species are perfectly distinguished by their make, by their features, and above all by their hair; whether Homer knew this characteristick difference does not admit of proof, but that he

⁶ Οὐοὶ γέ ἐλίσαντος ἀπαρτεῖς
Νέσφι πλαστιδάνει, δὲ ποτηρέχεις μυριάσαι
Ἀριστέρη Ὀλυμπίης πάρει τὸ γαῖας ικισθαί.
Ἄλλ' εἰ μὲν Ἀιδητας μυριάσαι τηλόθι οὔτας,
(Αιδητας τοι δίχθα δέδασται, ἵσχατος αὐθρῶι,
Οι μὲν δυομήτις Τηνίσιος, δι' γέ αἰσιότα.) Od. A. 19.

See the note upon this passage in Pope's translation of the *Odyssey*, where he adduces with great propriety the testimony of Strabo, to prove that all those nations were accounted Ethiopians by the early Greeks, who lived upon the Southern Ocean from east to west; and the authority of Ptolemy to shew, "that

"under the zodiack from east to west, in-
"habit the Ethiopians black of colour." The whole passage in Strabo, and the various reading of Aristarchus and Crates, are well worth consulting. Lib. i. p. 30.

⁷ Ἐπιστέλλεις οὐαρχος ἡ διὰ τὸν διαιρεῖ τὰς Ἀιδητας
ἢ ὅτι τὰς Ἰνδας ἦσαν τινας τοιέτους τοὺς σώμασιν· εἴδι γέ τις
ΑΡΧΗΝ ἴδειν τὰς Ἰνδας; Ἰνδας; Ινδας; οὐαρχος. Strabo,
Lib. ii. p. 103. it is not probable that Homer knew India at all, certainly not as India, but as Ethiopia.

⁸ Εργάτης.

knew.

knew they were of a separate race is undeniable, and that he placed them east and west at the extent of his knowledge, is an approximation to truth, and consistent with their actual position at the present hour.

HERODOTUS.

IV. THE distinction which Homer has not marked, is the first circumstance that occurred to Herodotus; he mentions the eastern Ethiopians considered as Indians, and differing from those of Africa expressly by the characteristick⁹ of long hair, as opposed to the woolly head of the Cafre. We may collect also, with the assistance of a little imagination, the distinct notice of three sorts of natives, which correspond in some degree with the different species which have inhabited this country in all ages. The Padēi on the north¹⁰, who are a savage people resembling the tribes which are still found in the northern mountains, mixed with Tartars perhaps, and approaching to their manners; a second race living far to the south, not subject to the Persian empire¹¹, and who abstain from all animal food; under this description we plainly

⁹ Lib. vii. p. 541.

¹⁰ If the situation of the Padēi were ascertained we might inquire about the manners attributed to them by the historian; but he mentions only some tribes that live upon the marshes formed by the river (that is, probably the Indus), and then the Padēi to the east of these; this places them on the north of India: as to all appearance the marshes noticed are those formed by the rains in the Panjab, but how far east beyond this province we are to fix

the Padēi is indefinite. I cannot suppose that Herodotus had received any report of the nations north of the Himmalu Mountains, or else I should offer a conjecture to the Orientals, whether Padēi, converted into Pudēi, might not allude to Budtan; for a and u are convertible, as is evident in Multan, which is only another form of reading Mu-l-tan for Mal-tan or Mallistan, the country of the Mallis.

¹¹ Lib. iii. p. 248.

discover the real Hindoos; and a third inhabiting Paſtyia and Caspatyrus, who resemble the Bactrians in their manners, dress, and arms, who are ſubject to Persia, and pay their tribute in gold; these, whether we can discover Caspatyrus or not, are evidently the ſame as thoſe tribes which inhabit at the ſources west of the Indus; who never were Hindoos, but poſſefs a wild mountainous country, where their fastneſſes qualify them for a predatory life, and where they were equally formidabie to Alexander, to Timour, and Nadir Shah²⁵; they reſemble to this day the Bactrians, as much as in the time of Herodotus, or rather the Agwhans in their neighbourhood; and are as brave as the one, and as ferocious as the other. These tribes it is more neceſſary to mark, because it will prove that the Persians never were maſters of India properlly ſo called, but of that country only which is at the ſource of the Indus. Whether they penetrated beyond the main ſtream, that is the Indus or the Attock itſelf, muſt be left in doubt; but Paſtyia, according to major Rennell, is Peukeli; and if Caspatyrus be the ſame as the Caſpira of Ptólemy, there is ſome ground for ſuſpoſing that city correspondent to Multan. Should these conjectures be confirmed by future inquiry, it would prove that the Persians did paſs the Attock, and were really maſters of the Panjeab and Multan; and the tribute which they received, equal to half the revenues of the empire, affords ſome reaſon for ſuſpoſing this to be the fact. Much depends upon the iſſue of this inquiry, because the Attock, or *forbidden* river, has been the western boundary of Hindoſtan in all ages; if the Persians paſſed it, India

²⁵ Nadir was glad to compound with these tribes, to let him paſs unmoleſted with the plunder of the unhappy Mahomed Shah.

were tributary to them; if they did not, the tribes west of the Attock only were subjected, and they were never Hindoos, however esteemed so by the Persians. Another circumstance dependent on this inquiry, is the voyage of Scylax, said to have commenced from Paetysia and Caspatyrus, and to have terminated in the Gulph of Arabia. There are two inconsistencies in the report of this voyage by Heródotus; the first, that he mentions the course of the Indus to the east¹³, which is in reality to the south-west: the second, that he supposes Darius¹⁴ to have made use of the discoveries of Scylax for the invasion of India. Now if Darius was master of the Attock, Peukeli, and Multan, he wanted no information concerning the entrance into India, for this has been the route of every conqueror; or if he obtained any intelligence from Scylax it is certain that neither he, nor his successors ever availed themselves of it, for any naval expedition. The Persians were never a maritime people. History no where speaks of a Persian fleet in the Indian ocean, or even in the Gulph¹⁵ of Persia; and in the Mediterranean, their sea forces always consisted of Phenicians, Cyprians, or Egyptians.

Far is it from my wish wantonly to discredit any historical fact supported on the testimony of such a writer as Herodotus; but there

¹³ See Hyde Rel. Vet. Persarum, cap xxiii. who is half disposed to make Scylax navigate the Ganges on account of its eastern direction. He hesitates only because Scylax must have returned to the north again from C. Comorin to survey the mouths of the Indus. See Wesselung ad Herod. lib. iv. p. 300. note 34.

¹⁴ Hyrcanus father of Darius is the Gushaspes of the Zendavesta, and king of Balk or

Bactria; but I have never been able to discover, that the Persian Darius of the Greeks, or his father Hyrcanus, can be identified with the Bactrian Gushaspes of the Zende or Oriental writers; and I see Richardson in the preface to his Persian Dictionary assigns no real antiquity to the Zende of Anquetil du Perron.

¹⁵ I speak of a navy, not ships for trade.

are insuperable difficulties in admitting this voyage of Scylax, or that of the Phenicians round the continent of Africa; the greatest of all is, that no consequences accrued from either. That Herodotus received the account of both from Persians or Egyptians, is undeniable; that they were performed is a very different consideration. I do not dwell upon the fabulous¹⁴ part of his account of India; because even his fables have a foundation in fact¹⁵; but I cannot believe from the state of navigation in that age, that Scylax could perform a voyage round Arabia, from which the bravest officers of Alexander shrank; or that men who had explored the desert coast of Gadesia, should be less daring than an unexperienced native of Caryanda. They returned with amazement from the sight of Mysenden and Ras-al-had, while Scylax succeeded without a difficulty upon record. But the obstacles to such a voyage are numerous, first, whether Paetysia be Peukeli, and Caspatyrus, Multan: secondly, if Darius were master of Multan, whether he could send a ship, or a fleet, down the Indus to the sea, through tribes

¹⁴ What the fable is of the ants which turned up gold, and the manner of collecting it by the natives, I cannot determine; but it is possible, that as our knowledge of India increases, it will be traced to its source; and one thing is certain, that it is a tale existing from the time of Herodotus to the age of De Thou; it is countenanced likewise in the Letters of Busbequius, who saw one of these ants [skins] sent as a present from the king of Persia to the Porte. See Larcher, tom. iii. p. 339. Another fable, totally dissonant to the ordinary manners of the Hindoos, I shall give in the words of the historian, Mihi & rētū: τὸν Ἰνδὸν ποτίσα ταῦτα λύθεις εἰναι ταῦτα;

τὸν προσάτων, lib. iii. 248. quod populo universo nequaquam objiciendum est, sed originem ducit ex illo spuriissimo commercio femininarum proliis desiderio laborantium, cum Hylobiis et Heautontimorumenis. I can, upon similar principles, account for the greatest part of the fables imputed to Megasthenes, Daimachus, Onocritus. Lt. Wilford explains Ctēsias's fable of the Martichorn.

¹⁵ Not all indeed, for his voyage of Hercules to Scythia is mere mythology. I do not use this to discredit the voyage of Scylax; my object is to mark fable as fable, and to select the truths mixed with it for observation. See Herod. lib. ix. p. 283. ed. Well.

where Alexander fought his way at every step ; thirdly, whether Scylax¹⁸ had any knowledge of the Indian Ocean, the coast, or the monsoon : fourthly, if the coast of Gedrosia were friendly, which is doubtful, whether he could proceed along the coast of Arabia, which must be hostile from port to port. These and a variety of other difficulties¹⁹, which Nearchus experienced, from famine, from want of water, from the built of his vessels, and from the manners of the natives, must induce an incredulity in regard to the Persian account, whatever respect we may have to the fidelity of Herodotus.

C T E S I A S.

V. NEXT to Herodotus, at the distance of little more than sixty years, succeeds Ctēsias. He resided a considerable time in the court of Persia, and was physician to Artaxerxes Mnemon. What opportunities he had of obtaining a knowledge of India must have been accidental, as his fables are almost proverbial, and his truths very few ; his abbreviator Photius, from whose extracts only we have

¹⁸ That there was such a person as Scylax, that he was in India, and that his account of that country was extant, appears from Aristotle's Politicks, lib. vii. in Dr. Gillies's translation, book iv. p. 240. I learn likewise from Larcher, that the Baron de Sainte Croix defends the work which now bears the name of Scylax as genuine, in a dissertation read before the Academy of Inscriptions ; but I know not whether that dissertation be published. See Larcher's Herod. tom. iii. p. 407. I have one objection to its authenticity, which is his mention of Dardanus, Rhētēum, and Ilium in the Troad,

p. 35. for there is great doubt whether Rhētēum was in existence in the time of the real Scylax ; and of India, he says nothing in the treatise now extant.

¹⁹ Strabo says, Posidonius disbelieved this whole history of Scylax, though he believed the voyage of Eudoxus, lib. ii. p. 100. The fact is, there were so many of these voyages pretended, and so few performed, that the best judges did not know what to believe ; Strabo believed nothing of the circumnavigation of Africa. See lib. i. p. 32.

an account of his works, seems to have passed over all that he said of Indian manners ; and to have preferred only his tales of the marvellous. The editor¹⁰, however, is very desirous of preserving the credit of his author, and that part of the work which relates to Persia is worthy of the estimation he assigns it; but we are not bound to admit his fable of the martichora, his pygmies, his men with the heads of dogs and feet reversed, his griffins and his four-footed birds as big as wolves.—These fictions of imagination indeed are still represented on the walls of the Pagodas ; they are symbols of mythology, which the Bramins pointed out to the early visitors of India, and became history by transmission.

The few particulars appropriate to India, and consistent with truth, obtained by Ctēsias¹¹, are almost confined to something resembling a description of the cochineal plant, the fly, and the beautiful tint obtained from it, with a genuine picture of the

¹⁰ Ctēsias says, there is a pool which is annually filled with liquid gold ; that an hundred measures (*περιστατα*) of this are collected, each measure weighing a talent ; at the bottom of this pool is found iron, and of this iron he had two swords, one presented to him by the king, and the other by Paryātis the king's mother. The property of these swords was, that when fixed in the ground they averted clouds, hail, and tempests ; he saw the king make the experiment, and it succeeded.

Now whatever a traveller says he saw with his own eyes, (unless there are other reasons for doubting his veracity,) is deserving of credit, but when he sees things that imply an impossibility, all faith is at an end.—That there was some superstitious practice in Persia of fixing swords in the ground for this pur-

pose, may be believed, but that these swords must be wrought of metal from the golden fountain, or that they had this effect, is a different consideration ; the words are, οὐδὲ τοῦτα φέναι, παρεῖναι δὲ ταῦτα τοτε.—Why does Wesseling tell me to believe this ? nay I would have believed it, if he had not asserted the success of the experiment, but only that the king tried it. Perhaps some ingenious modern may hereafter quote περισταταί αἰνοτελεῖαι, to prove that iron was known to be a conductor in that age, and that electricity was concerned in this experiment. See p. 827. Wesseling's ed. of Herod : and Ctēsias.

¹¹ Some other circumstances recorded by Ctēsias may be collected from Diodōrus, but I have confined myself to his own work.

- monkey and the parrot; the two animals he had doubtless seen in Persia, and flowered cottons emblazoned with the glowing colours of the modern chintz, were probably as much coveted by the fair Persians in the Harams of Susa and Ecbatana, as they still are by the ladies of our own country.

Ctesias is contemporary with Xenophon, and Xenophon is prior to Alexander by about seventy years; during all which period, little intelligence concerning India was brought into Greece; and if the Macedonian conquests had not penetrated beyond the Indus, it does not appear what other means might have occurred of dispelling the cloud of obscurity in which the eastern world was enveloped.

The Macedonians, as it has been shewn in a former work, obtained a knowledge both of the Indus and the Ganges; they heard that the seat of empire was, where it always has been, on the Ganges, or the Jumna. They acquired intelligence of all the grand and leading features of Indian manners, policy, and religion: they discovered all this by penetrating through countries where possibly no Greek had previously set his foot; and they explored the passage by sea, which first opened the commercial intercourse with India to the Greeks and Romans, through the medium of Egypt and the Red Sea; and finally to the Europeans by the Cape of Good Hope.

It matters not that the title of fabulists is conferred upon Megasthenes, Nearchus, and Onesicritus, by the ancients; they published more truths than falsehoods, and many of their imputed falsehoods are daily becoming truths, as our knowledge of the country is improved. The progress of information from this origin is materi-

ally connected with the object we have proposed, and it cannot be deemed superfluous to pursue it through the chain of authors, who maintain the connection till the discovery of the passage across the ocean by means of the monsoon.

Megasthenes and Daimachus²² had been sent as ambassadors from the kings of Syria to Sandrocottus and his successor Allitróchades; the capital of India was in that age at Palibóthra, the situation of which, so long disputed, is finally fixed, by Sir William Jones, at the junction of the Saone and the Ganges. These ambassadors, therefore, were resident at a court in the very heart of India, and it is to Megasthenes in particular that the Greeks are indebted for the best account of that country. But what is most peculiarly remarkable is, that the fables of Ctēsias were still retained in his work; the Cynocéphali, the Pigmies, and similar fables were still asserted as truths. It is for this reason that Strabo²³ prefers the testimony of Eratosthenes and Patrócles, though Eratosthenes was resident at Alexandria, and never visited India at all; and though Patrócles never saw any part of that country beyond the Panjeab, still their intelligence he thinks is preferable, because Eratosthenes had the command of all the information treasured in the library of Alexandria; and Patrocles was possessed of the materials which were collected by Alexander himself, and which had been communicated to him by Xeno the keeper of the archives.

It is inconceivable how men could live and negotiate in a camp on the Ganges, and bring home impossibilities as truth; how

²² Bruce says, Megasthenes and Denis, which misled him; he is not in the habit of from Ptolemy king of Egypt, vol. i. p. 461. citing his authorities.

This seems as if he followed French authority, ²³ Lib. ii. in initio, p. 70.

Megasthenes

Megasthenes could report that the Hindoos had no use of letters²⁴, when Nearchus had previously noticed the beautiful appearance of their writing, and the elegance of character, which we still discover in the Shanskreet²⁵; but the fabulous accounts of Crœsus were repeated by Megasthenes, professedly from the authority of the Bramins; and whatever reason we have to complain of his judgment or discretion, we ought to acknowledge our obligations to him as the first author who spoke with precision of Indian manners, or gave a true idea of the people.

It is not possible to enter into the particulars of all that we derive from this author, but the whole account of India, collected in the fifteenth book of Strabo, and the introduction to the eighth book of Arrian, may justly be attributed to him as the principal source of information. His picture is, in fact, a faithful representation of the Indian character and Indian manners; and modern observation contributes to establish the extent of his intelligence, and the fidelity of his report.

This source of intelligence, commencing with Alexander and concluding with Megasthenes and Daimachus, may be classed under the title of Macedonian, as derived from Alexander and his successors, and such knowledge of the country as could be acquired by a hasty invasion, by the inspection of travellers and ambassadors, or by the voyage down the Indus, the Macedonians seem to have

²⁴ Strabo, lib. xv. p. 709. an imputation on Megasthenes, which the good father Paolino is very unwilling should attach to him. See his Dissertation De veteribus Indis, in answer to Augustinus Georgius, author of the Thibet Alphabet, p. 12.

²⁵ Shanskreet, or Sanscrit, is the mode of writing this word, which has prevailed among our English writers. I always prefer the most popular, but Paolino writes Samn Crda, lingua perfecta, p. 258. or Krda = perfecta, Sam = simul, coëval with creation.

attained with singular attention, and, notwithstanding particular errors, to have conveyed into Europe with much greater accuracy than might have been expected.

The voyage of Nearchus opened the passage into India by sea, and obviated the difficulties of penetrating into the east by land, which had previously been an insurmountable barrier to knowledge and communication. But it is to Onesicritus²⁶ we trace the first mention of Taprōbana, or Ceylon, and what is extraordinary, the dimensions he has assigned to it, are more conformable to truth²⁷, than Ptolemy had acquired four hundred years later, and at a time when it was visited annually by the fleets from Egypt; but on this subject more will be said in its proper place.

I A M B Ú L U S.

VI. The mention of Ceylon naturally introduces us to the voyage of Iambūlius²⁸, because, fabulous as his account is, it is still most

²⁶ To Onesicritus only, if we follow Strabo or Pliny, vi. 24. who, he says, mentions elephanta there larger and more fit for war than elsewhere, a truth to this day. Megasthenes notices a river, gold and pearls, and that the people are called Palēōgoni. Eratosthenes seems to have enlarged upon the size given it by Onesicritus, for instead of 625 miles, he says it is 875 miles long, 625 broad. In Pliny's age the north eastern side was grown to 1250 miles, and the error was always on the increase till the time of Ptolemy. Pliny adds, that Rachia [Rajah] was the head of the embassy to Rome, and that Rachia's father had visited the Seres. One incidental circumstance seems to mark Arabian intercourse previous to the voyage of Annus Ptolemaeus's freed man. Regi, cultum Liberi Par-

tris, ceteris, Arakum, the king worshipped Bacchus, the people on the coast followed the rites of the *Arabians*. The king wore the garment of India, the people (on the coast) that of the *Arabians*. He adds also, that Hercules was worshipped, that is, Bali, the Indian Hercules. Whence both Palēōgoni, and Paldēōnoondus. This, however, ought not to be asserted without giving due weight to Paolino, who derives Paldēōnoondus from Parashri mandala, the kingdom of Parashri, and Parashri is the Indian Bacchus.

²⁷ He makes it 625 miles, without mentioning length or breadth; it is in reality near 280 miles long, and 138 broad; but Ptolemy extends it to more than 966 miles from north to south, 759 from west to east.

²⁸ See Harris, vol. i. 383. and Ramusio.

probably

probably founded on fact, and because Diodorus has ranked it as history.

Lucian²⁹, perhaps, formed a better judgment when he classed him with the writers of fiction; for his account of the Fortunate Islands and of Ceylon stand almost on the same ground; the circumference of the Island he seems to give at five thousand stadia from Onesicritus, and the navigation across the ocean from Ethiopia he derived from the general knowledge that this voyage had been performed, or imputed, from a very early age; his departure from Ceylon to the Ganges, his arrival at Palibóthra, and his intercourse with the king, who was an admirer³⁰ of the Greeks, may be referred to Megasthenes and Daimachus, while his fictions of impossibilities are all his own. Notwithstanding all this there are some allusions to characteristick truths, which though they do not bespeak the testimony of an eye-witness, prove that some knowledge of the island had reached Egypt, and this at a time previous to the discovery of the monsoon; for Iambulus must be antecedent to Diodorus, and Diodorus is contemporary with Augustus. It is this

²⁹ Luc. de vera historia, i. cap. 3. γνῶμοι μὲν στασὶ τῷ φεύδει πλαισίμως ἐπὶ αἰγαῖς δὲ ὄμως σ. Α. της ἴτι. σιν., Wesseling in lib. ii. 167. Diod.

³⁰ Φιλία, though there be nothing in this word to raise suspicion in general, but at the strangeness of the circumstance, how a king of Palibothra should know enough of Greeks to be fond of the nation: there is still a secret allusion of much curiosity, which is this, the native chiefs who raised themselves to independence on the ruins of Syrian monarchy, (whether from the number of Greeks in the east, or from the popularity of the Grecian

sovereignty, is hard to determine,) assumed the title of Φιλίατῶν; and this term is still found inscribed in Greek letters upon the coins of the first usurpers of the Parthian dynasty. See Bayer. p. 105. It seems, therefore, highly probable, that the inventor of this tale of Iambulus knew that some of the eastern potentates were styled lovers of the Greeks; and he has ignorantly applied this title to a sovereign of India, which appertained properly to those only who reigned in the north of Persia. This seems an additional proof of the imposture; the author knew a curious piece of secret history, but did not know how to apply it.

single circumstance that makes it requisite to notice such an author. The truths alluded to are, I. The stature of the natives, and the flexibility of their joints. II. The length of their ears, bored and pendent. III. The perpetual verdure of the trees. IV. The attachment of the natives to astronomy. V. Their worship of the elements, and particularly the sun and moon. VI. Their cotton garments. VII. The custom of many men having one wife in common, and the children being entitled to the protection of the partnership. (This practice is said by Paolino¹¹ to exist still on the coast of Ceylon, and is apparently conformable to the manners of the Nayres on the continent.) VIII. Equality of day and night. IX. The Calamus or Maiz. And it is submitted to future inquiry, whether the particulars of the alphabet may not have some allusion to truth; for he says, the characters are originally only seven, but by four varying forms or combinations they become twenty-eight.

The chief reason to induce a belief, that Lambúlus never really visited Ceylon, is, that he should assert he was there seven years, and yet that he should not mention the production of cinnamon. There is no one circumstance that a Greek would have noticed with more ostentation than a discovery of the coast where this spice grew; but Lambúlus, like the rest of his countrymen, if he knew the produce, adjudged it to Arabia, and never thought of this leading truth, as a sanction to the construction of his fable; he is described by Diodórus as the son of a merchant, and a merchant himself, but possessed of a liberal education. In trading to Arabia

¹¹ Paolino was a Romish missionary in Travencore, for thirteen or fourteen years; his work was published at Rome: he is sometimes mistaken on classical questions, but still it is a learned and instructive work, p. 378.

for spiccs, he was taken prisoner and reduced to slavery ; he was carried off from Arabia by the Ethiopians, and by them committed to the ocean, to be driven wherever the winds might carry him ; and in this case his reaching Ceylon would be the least improbable²² part of his narrative. No means occur to settle the date of this history, but the allusion to known truths makes it curious, even if it be a novel. These truths could have been obtained only from report in the age of Diodorus²³, and the wonder is, that it contains a circumstance dependent on the monsoon, of which Diodorus was himself ignorant, and which was not known to the Greeks and Romans till near a century later. I dare not claim it as a *proof*, that the Arabians sailed by the monsoon at this time, but the scene is laid in Arabia, and the passage is made from the coast of Africa, as that of the Arabians really was ; and it is natural to conclude, that the Arabians did really sail to Ceylon in that age, though the Greeks and Romans did not. The embassy from Pandion to Augustus cannot be a fiction, and the ambassadors must have sailed from India, either on board Arabian ships, which frequented their harbours, or in Indian vessels which followed the same course. All this is previous to Hippalus, and the whole taken together is a

²² P. Luigi Maria de Gesù, a Carmelite, afterwards Bp. of Uſula, and Apostolick Vicar of the coast of Malabar, coming round Cape Comorin in a native vessel, was carried over to the Maldives, and thence to the coast of Africa. Paolin. p. 83. Annus Plocamus was carried in a contrary direction from Arabia to Ceylon ; and in fact, whenever a vessel, on either coast, is by accident forced out of the limit of the land and sea breeze,

she will be caught by the monsoon, and carried over to the opposite continent. To accidents of this sort we may impute a very early discovery of the monsoons by Arabian, or Ethiopians, long before Hippalus imparted it to the Greeks and Romans.

²³ Harris or Dr. Campbell are my precursors in this examination of Iambulus and Agatharchides. They gave credit to Iambulus. I here give the reason for my dissent.

confirmation of an Arabian navigation previous to that from Egypt. That a novel should contain historical facts and truths is natural, and will not be denied by those who are acquainted with Heliodorus. Many Ethiopick customs³⁴ are noticed in that work, which are true to this day. After all, the novel of Iambúlus is not so surprizing in itself, as its existence in the page of Diodórus.

A G A T H A R C H I D E S.

VII. AGATHARCHIDES³⁵, the next object of our consideration, is an author of far different estimation ; he was president of the Alexandrian library, and is always mentioned with respect by Strabo, Pliny, and Diodórus³⁶. His work on the Erythræan or Red Sea, is preserved in an extract of Photius, and copied almost in the same terms, but not without intermixture³⁷, by Diodórus. Diodórus indeed professes to derive his information from the royal commentaries, and original visitors of the countries he describes ; but that he copies Agatharchides is evident, by a comparison of this part of his work with the extract of Photius ; or, perhaps, con-

³⁴ The Nagareet drums, so often noticed by Bruce, are discoverable in this work.

³⁵ It is with much regret that I confess my neglect of this author, from whom I might have corroborated many circumstances in the voyage of Neæchus. A cursory perusal had induced me to view his errors in too strong a light : if justice be done to him on the present review, it is no more than he merits.

³⁶ Diodórus speaks of Agatharchides and Artemidórus, as the only authors who have written truth concerning Egypt and Ethiopia, Lib. iii. 181.

³⁷ In confirmation of this assertion, we may mention a passage, lib. iii. p. 208. Diod. where an allusion is evidently made to the separation of the waters of the Red Sea, as recorded by Moses ; it is received in this sense by Grotius, Bochart, and Wesseling ; and if this was in Agatharchides, it could hardly have been omitted by Photius, a christian bishop : if it was not in Agatharchides, it is plain that Diodórus joined other authorities to his. This is given as a conjecture, but it is of weight.

considering Agatharchides as librarian, he conceived that his work was founded on the commentaries or archives of the Alexandrian depository. Strabo³⁸ likewise follows Agatharchides in almost all that relates to Ethiopia, the countries south of Egypt, and the western coast of Arabia³⁹, or rather, as Wesseling has observed, with his usual accuracy, both copy Artemidorus⁴⁰ of Ephesus⁴¹, who is the copyist of Agatharcides.

It is necessary to pay more attention to this author, as he is apparently the original source from whence all the historians drew, previous to the discovery of the monsoon; his work forms an epoch in the science, and when Pliny comes to speak of the discoveries on the coast of Malabar in his own age, and adds, that the names he mentions are new, and not to be found in previous writers; we ought to consider him as speaking of all those, who had followed the authority of the Macedonians, or the school of Alexandria, of which, in this branch of science, Eratosthenes and Agatharchides were the leaders.

Eratosthenes was librarian of Alexandria under Ptolemy Euergetes I. and died at the age of eighty-one, 194, A. C. He was rather an astronomer and mathematician than a geographer, and is honoured with the title of surveyor of the earth⁴², as the first astronomer who measured a degree of a great circle⁴³, and drew the first parallel of latitude, the sublime attempt on which all the accuracy of the science depends.

³⁸ Lib. xvi. p. 769.

lived in the reign of Ptolemy Lachyrus, anno 169, A. C.

³⁹ Diod. hb. iii. p. 205. not. *καλυμήν*, &c. but Strabo cites both, p. 769.

⁴² See his eulogium in Pliny, lib. ii. c. 112.

⁴⁰ Id. 774.

⁴³ Hipparchus is later than Eratosthenes;

⁴¹ There are two Artemidorus's of Ephesus. See Hoffmann in voce. This Artemidorus

he is supposed to have lived to 129, A. C.

It appears from Strabo and Pliny, that Eratosthenes speaks of Meroc, India, and the Thinæ, and of the latter as placed incorrectly in the more ancient maps; how this nation, which was the boundary of knowledge in the age of Ptolemy, (and which, if it does not intimate China, is at least as distant as the golden Chersonese of Malacca,) found its way into charts more early than Eratosthenes, will be considered in its proper place; but his knowledge of Meroe or Abyssinia is derived from Dalion, Aristocreon, and Bion, who had been sent by Philadelphus, or his successors, into that country, or from Timoſthenes⁴⁴, who sailed down the coast of Africa as low as Cernè⁴⁵. This information concerning India must be deduced from the Macedonians, but his information is confined on the subject of Oriental commerce; the spherical figure of the earth seems to be the grand truth he was desirous to establish, and his geographical inquiries were perhaps rather the basis of a system, than a delineation of the habitable world.

Agatharchides, according to Blair, must, though younger, have been contemporary with Eratosthenes; he was a native of Cnidus in Caria, and flourished 177, A. C. But Dodwell⁴⁶ brings him down much lower, to 104, A. C. which can hardly be true, if Artemidorus⁴⁷ copied his work, for the date of Artemidorus is attributed to 104, A. C. also, the same year which Dodwell gives to Agatharchides.

⁴⁴ What credit Timoſthenes deserves is dubious, as Pliny mentions, that he makes the Red Sea only four days sail in length and two broad, if I understand the passage. Lib. vi. c. 35.

⁴⁵ Sometimes supposed to be Madagascar.

See infra.

⁴⁶ Bruce says, in the reign of Ptolemy IX. too, A. C. but does not say a word of the contents of his work, i. 467.

⁴⁷ See Diod. iii. 181, Wellcl. note.

These

These dates are of importance, if we assume the work of Agatharchides as an epoch, which in fact it seems to be, and the principal authority for the subsequent historians previous to the discovery of Hippalus; his work it is by no means necessary to vindicate in all its parts, but it contains many peculiar truths " confirmed by modern experience, and the first genuine characteristics of Abyssinia that occur in history.

Some of these circumstances, though not connected with the purpose before us, cannot be superfluous, as they contribute to establish the credit of the work; these are, I. The gold mines worked by the Ptolemies on the coast of the Red Sea; the process; the sufferings of the miners; the tools⁴⁸ of copper found in them, supposed to have been used by the native Egyptians, prior to the Persian conquest. II. In Meroe, or Abyssinia, the hunting of elephants, and hamstringing them; the flesh cut out of the animal alive⁴⁹. III. The fly, described as the scourge of the country in

⁴⁸ Great moderation is due in judging all writers who speak of a country in the first instance. Things are not false because they are strange, and an example occurs in this author, which ought to set rash judgment on its guard. Agatharchides mentions the worm which is engendered in the legs, and is wound out by degrees. Plutarch ridicules the assertion, and says, it never has happened and never will. In our days every mariner in the Red Sea can vouch the truth of the fact; and if Plutarch had lived to be acquainted with our illustrious Bruce, he would have shewn him that he carried with him the marks and effects of this attack to the grave. See Testimonia. Agathar. De Rub. Mari. Hudson, p. i. See also Diodorus, lib. iii, p. 199.

Πόλεις ή γένος τάχαν παραδίσταγα συντηρεῖται, τοις μὲν αὐτούσιοι διηγεῖται τοις δὲ τούτοις ιαπεῖται, οὐ παραπόνεται.

⁴⁹ A very extraordinary fact, and similar to what has happened in our own age. According to Col. Vallancy, instruments have been found in the mines in Ireland which he supposes to be Phenician; and others have been found in the mines in Wales, which are certainly Roman.

⁵⁰ Strabo also mentions the Κριόφαγοι, which perhaps intimates eaters of raw flesh, and the excisio sceminarum, in a passage where he seems to be copying Agatharchides or Artemidorus. The original here does not specify the flesh from living oxen, but elephants. See Strabo, lib. xvi. p. 771.

the same manner as by Bruce. IV. Something like the ensete tree of Bruce. V. Locusts described as food. VI. Troglodytes. VII. The rhinoceros, the camelopard, apes⁵¹ strangely called sphinxes⁵², the crocotta⁵³ or hyena; several other minute particulars might be enumerated, but not without a tincture of the fabulous.

His account of the coast is our more immediate concern ; this commences at Arsinoë, or Suez, and goes down the western coast of the Red Sea to Ptolemáis Thérôn⁵⁴, it mentions Myos Hormus, but takes no notice of Berenice. The particulars of this navigation are very scanty, but still one fact is substantiated, that the ordinary course of trade carried on, went no lower than Ptolemáis, and was confined more especially to the importation of elephants.

Ptolemáis is the Ras Ahehaz of d'Anville, the Ras Agceg of Bruce, in latitude 18°. 10'.⁵⁵ and full three hundred and fifty miles short of the straits of Bab-el-Mandeb. A proof that whatever Ptolemy Philadelphus had discovered of the coast of Africa, it was now little visited by the fleets from Egypt, but that there was some sort of commerce is certain ; Strabo cites Eratosthenes⁵⁶ to prove that the passage of the straits was open, and Artemidorus, to shew the extension of this commerce to the Southern Horn ; of this there will be

⁵¹ The sphinxes are supposed to be apes by Wesseling, and from their tameness it is probable. The crocotta I translate hyena, because it is said to be between a wolf and a dog; from the mention of its imitating the human voice, it may be the shackall. I cannot help noticing that the animals enumerated by the author are all named in the same manner on the celebrated Palestrine Mosaick. Hardouin thinks that the distinction of these sphinxes from the common ape, was in the face, smooth

and without hair. Ad Plin. lib. vi. See the Krokotas on the Palestrine marble, which I am not naturalist sufficient to appropriate.

⁵² So called from Θηρα, because the elephants were here hunted and taken; they are so still according to Bruce, and below this cape, de la Rochette places the commencement of a vast forest, seen by all vessels which keep this coast.

⁵³ 18°. 7'. de la Rochette.

⁵⁴ Lib. xvi. p. 769.

frequent occasion to speak hereafter, neither ought it to be omitted, that perhaps Agatharchides knew the inclination of the African coast beyond the straits, for he notices its curvature^{ss} to the east, [which terminates at Gardefan,] and which is apparently the boundary of his knowledge in this quarter; but our immediate business is with the coast between Myos Hormus and Ptolemáis, and here the first place mentioned is the Sinus Impurus^{ss}, which admits of identification with the Foul Bay of our modern charts, from the circumstances mentioned by Strabo, who says, it is full of shoals and breakers, and exposed to violent winds, and that Berenice lies in the interior of the bay^{ss}.

Below this, Agatharchides, or his abbreviator, afford little information, for we are carried almost at once to two mountains, called the Bulls and Ptolemáis Thérôn, without any intervening circumstance but the danger of shoals, to which the elephant ships from Ptolemáis are exposed: of these shoals there are many about Suakem in de la Rochette, though Bruce denies the existence of a single one on the whole western coast of the Red Sea. The geographer, however, is more to be depended on than the traveller, as is proved by the misfortunes to which some of our English vessels have been exposed, which verify the assertions of Eratosthenes, Artemidorus, and Agatharchides.

At Ptolemais the account closes, as if there were no regular commerce below that point; but its existence has been evinced by what is here said, and will be farther confirmed from the Adulitick.

^{ss} I am not certain whether this relates to prodigies beyond them.
the coast within the gulph or without, but he

^{ss} Κ.Λπο. ἀκαθάρτος.

mentions the islands at the straits and the

^{ss} Ε, βύθον τὸ κάκτον. Strabo, p. 770.

marble in its proper place; but the total silence of Agatharchides, in regard to Berenicè, unless it be an omission of his abbreviator, is still more unaccountable; it appears, indeed, as if the caravan road from Coptus to this place, was a much greater object of attention under the Roman government than under the Ptolemies. The accounts extant are all Roman; from Pliny, from the Itinerary, and from the Peutingerian tables; but the Greek authorities may have perished, and Strabo mentions two different states of these roads; one from Coptus to Berenicè as it was first opened by Philadelphus, and another from Coptus to Myos Hormus, after it was furnished with wells and reservoirs, and protected by a guard. Are we then to think that this, after being opened, was neglected again, when Agatharchides wrote? or are we to suppose that Berenicè is comprehended in the mention of Myos Hormus⁵⁸? for Berenicè is no harbour⁵⁹, but an open bay, and the ships which lade there, lie at Myos Hormus till their cargo is ready. However this may be, the account of Agatharchides returns again from Ptolemais to Myos Hormus, and then, after passing the gulph of Arsinoë, or Suez, crosses over to Phenicôn⁶⁰ in the Elanitick Gulph, and runs down the coast of Arabia to Sabaea. In this course of great obscurity, there is no occasion at present to pursue the tract throughout, as it will be resumed in the third book, when the account of the Periplûs is to be examined, and such light as is to

⁵⁸ It should rather seem from this that the road from Coptus to Myos Hormus (which was the nearest) was more frequented than that to Berenicè, and that the latter was never materially in use, till the time of the Romans.

⁵⁹ Strabo, lib. xvii. p. 815. Βιρείκην μάλιμ-

νον μὲν, τὸ δὲ ιυκαιμίς τῷ Ισθμῷ καταγεγένεται περιπλικῶς ἔχεται, and infra εἰς ἀπωθεῖται τῆς Βιρείκης ἐπὶ Μύος. "Ορμός πόλις ἔχεται κάντακτος τῷ πλαϊκῷ μίνῳ."

⁶⁰ De la Rochette places Phenicôn at Tor, but this will be considered hereafter.

be collected from other geographers will be adduced, in order to elucidate the narrative, which is the first genuine account of Arabia that is extant. Neither is it unworthy of notice, that the *Periplùs* itself is constructed upon the plan of Agatharchides; it goes down the western coast of the gulph in the same manner, then returns back to Myos Hormus, and crosses over to the eastern side, and pursues that line to its conclusion; the difference between the two consists in the difference of knowledge in the respective ages. Agatharchides describes the trade as it stood in the age of Philométor. The *Periplùs* carries it to the extent it had obtained under the protection of the Roman emperors; but both set out from the same point for both voyages and it is only the extension of the line which constitutes the distinction.

But it is our immediate business to proceed to the country of the Sabéans, called Arabia the Happy, from its wealth, its commerce, and its produce, either native or imputed. This province answers generally to the modern Yemen, and the Sabéans of our author's age possessed the key to the Indian commerce, and stood as the intermediate agents between Egypt and the East. This is a most valuable fact, which we obtain from this work, and clouded as it may be with much that is dark and marvellous, the truth appears upon the whole incontestably. Certain it is that the wealth assigned to this nation is a proof of the existence of a commerce, which has enriched all who have stood in this situation, and equally certain is it that the information of the author ceases at the succeeding step.

Sabéa, says Agatharchides, abounds with every production to make life happy in the extreme, its very air is so perfumed with odours, that the natives are obliged to mitigate the fragrance by

fcents that have an opposite tendency, as if nature could not support even pleasure in the extreme. Myrrh, frankincense, balsam, cinnamon, and casia are here produced from trees of extraordinary magnitude. The king, as he is on the one hand entitled to supreme honour, on the other is obliged to submit to confinement in his palace, but the people are robust⁶¹, warlike, and able mariners, they sail in very large vessels to the country where the odoriferous commodities are produced, they plant colonies there, and import from thence the larinna⁶², an odour no where else to be found ; in fact there is no nation upon earth so wealthy as the Gerrhei and Sabei, as being in the centre of all the commerce which passes⁶³ between Asia and Europe. These are the nations which have enriched the Syria⁶⁴ of Ptolemy ; these are the nations that furnish the most profitable agencies to the industry of the Phenicians, and a variety of advantages which are incalculable. They possess themselves every profusion of luxury, in articles of plate and sculpture, in furniture of beds, tripods, and other household embellishments, far superior in degree to any thing that is seen in Europe. Their expence of

⁶¹ So Bruce, vol. i. p. 408. quotes Isaiah, xlvi. 14. *The merchandise of Ethiopia and of the Sabeans, men of stature, as curious, for according with this passage, in our author, as with the testimony of their mercantile pre-eminence,* מִצְרַיִם Sebaim. The term for Ethiopia, in this passage, is Cush, which means some tribe of Arabia, and not the Ethiopians of Africa.

⁶² Strabo makes Larimus an odour, ιωνίστας θυμιάμα. xvi. 778.

⁶³ The fragment of Agatharchides preserves a most valuable record in Photius which is lost in Diodorus and Strabo. Strabo ends with

the riches of Sabaea, and does not go to the White Sea, and the particulars of the sun mentioned by Diodorus and Photius. In the former part Diodorus is more expansive and intelligible than Photius.

⁶⁴ See Harris, i. 419. Josephus, lib. viii. c. 2. where mention is made by Harris of Ptolemy's building Philadelphia on the site of Rahab of the Ammonites, which might have some relation to Syria. But I cannot help supposing that Συρία is here a false reading. It ought to be the kingdom of Ptolemy, and not the Syria of Ptolemy.

living rivals the magnificence of princes⁶¹. Their houses are decorated with pillars glistening with gold and silver. Their doors are crowned with vases and beset with jewels; the interior of their houses corresponds in the beauty of their outward appearance, and all the riches of other countries are here exhibited in a variety of profusion⁶². Such a nation, and so abounding in superfluity, owes its independence to its distance from Europe; for their luxurious manners would soon render them a prey to the European sovereigns, who have always troops on foot prepared for any conquest, and who, if they could find the means of invasion, would soon reduce the Sabéans to the condition of their agents and factors, whereas they are now obliged to deal with them as principals.

From this narrative, reported almost in the words of the author, a variety of considerations arise, all worthy of attention. It is, as far as I can discover, the first contemporary account of the commerce opened between Egypt and India, by the medium of Arabia; it proves that in the reign of Ptolemy Philométor, in the year 177, A. C. and 146 years after the death of Alexander, the Greek sovereigns in Egypt had not yet traded directly to India, but imported the commodities of India from Saba the capital of Yemen; that the port of Berenícè was not used for this commerce, but that

⁶¹: Strabo from Eratosthenes and Artemidorus, confirms all this splendour, and almost repeats the words of Agatharchides, lib. xvi. p. 778.

⁶²: Harris, or Dr. Campbell, after talking magnificently of the commerce of the Ptolemies with India, at last confesses, vol. i. p. 432. that the discovery of Hippalus is the first certain date of a visit to that country. It is

manifest from the whole of this account before us, that the Sabéans did go to India, and that the subjects of Ptolemy did not. It is this monopoly that made the riches of Arabia proverbial.—Ieci beatis nunc Arabum invides gazis. Hor. Ode 29. lib. i. where my excellent friend and patron the archbishop of York, reads, beatus nunc, which gives a beautiful turn to the whole Ode.

Myos Hormus, or Arsinoë, was still the emporium. It proves that there was no trade down the coast of Africa (an intercourse afterwards of great importance) except for elephants, and *that* no lower than Ptolemáis Thérôn. It shews that the voyage down the Arabian coast of the Red Sea was still very obscure, and above all it demonstrates uncontestedly by the wealth constantly attendant on all who have monopolised the Indian commerce, that the monopoly in the author's age was in Sabêa. The Sabêans of Yemen appear connected with the Gerrhêans on the Gulph of Persia ; and both appear connected with the Phenicians by means of the Elanitick Gulph, and with the Greeks in Egypt, by Arsinoë and Myos Hormus.

I am not ignorant that the establishment of a trade with India is attributed to Ptolemy Philadelphus⁶⁷, that the immense revenue and wealth of Egypt is imputed to this cause, and that a number of Indian captives are mentioned by Athenæus, as composing one part of the spectacle and procession, with which he entertained the citizens of Alexandria. But this last evidence, which is deemed conclusive, admits of an easy solution ; for Indian was a word of almost as extensive signification in that age, as the present ; it comprehended the Cafres of Africa, as well as the handsome Asiatic blacks, and the commerce with Arabia was long called the Indian Trade, before the Greeks of Egypt found their way to India. But if real Indians were a part of the procession, they were obtained in Sabêa. The Arabians dealt in slaves, and the Greeks

⁶⁷ See Harris's Voyages, vol. 1. book i. c. 2. compared with p. 421. This work is quoted as Harris's, but this part of it, in the second edition here referred to, is by Dr. Campbell ; and is executed most ably. I am obliged to him for many references to authors, which I have it not in my power always to acknowledge.

might

*might find Indian slaves in their market as well as any other. Huet, Robertson, and Harris are all very desirous of finding a trade with India under the Ptolemies; but the two latter, as they approach the real age, when this commerce took place, upon the discovery of Hippalus, fully acknowledge, that all proofs of a more early existence of it are wanting; no contemporary author asserts it: and the testimony of Agatharchides, whether we place him in 177, or with Dodwell, in 104, A. C. affords perfect evidence to the contrary. The internal evidence of the work itself carries all the appearance of genuine truth, and copied as it is by Strabo and Diodorus it obtains additional authority *. They have both added particulars, but none which prove a direct communication with India in their own age. They both terminate their information at Sabaea, where he does, and both suppress one circumstance of his work which Photius has preserved, that ships from India were met with in the ports of Sabaea. Whatever knowledge of India, or Indian trade, they have beyond this, is such only as they derived from the Macedonians, and is totally distinct from the communication between Egypt and that country.

In regard to the influx of wealth into Egypt, it would be equally the same, whether the Greeks imported Indian commodities from Arabia or from India direct. For as the Sabeans were possessed of the monopoly between India and Egypt, so Egypt would enjoy the same monopoly between Sabaea and Europe.

* The authority of Agatharchides is often joined with that of Eratosthenes by Strabo, that it is highly probable it contains all that Eratosthenes knew, with the addition of his own information. See Strabo, lib. xvi. p. 778. τὰλλα δι, τὰ μὲν παρηπλοῖον, τῷ Ερατοσθένει λίγους, τὰ διηγῆ παρὰ τοῖς ἄλλαις Ἰνδικῶν παρεπιθέσιν.

The consumers, indeed, must bear the burden of this double monopoly, but the intermediate agents in both instances would be gainers, and the profits, while the trade was a monopoly, would be, as they always have been, enormous. The sovereigns of Egypt were well apprized of this, and so jealous were they of this prerogative of their capital, that no goods could pass through Alexandria either to India or Europe, without the intervening agency of an Alexandrian factor.

In the description which Agatharchides gives of Sabēa there is nothing inconsistent with probability; but this is the boundary of his knowledge towards the East, and the marvellous commences at the succeeding step, for he adds, that as soon as you are past Sabēa, the sea appears white like a river; that the Fortunate Islands skirt the coast, and that the flocks and herds are all white, and the females without horns⁶⁹. If this has any foundation in truth, the islands are those at the mouth of the gulph, if we ought not rather to understand the ports of Aden and Cana; and the mention of vessels arriving here from the Indus, Patala, Persis, and Karmania is agreeable to the system of the commerce in that age. A slight notice of the different appearance of the constellations next succeeds, and then an illustrious truth, that in this climate there is no twilight in the morning. Other circumstances are joined to this, which mislead; as the rising of the sun not like a disk but a column; and that no shadow is cast till it is an hour above the horizon. A more extraordinary effect is added, that the evening

⁶⁹ It is not extraordinary that sheep should be found without horns, but it is remarkable that this should be regarded as a marvellous occurrence from the time of Homer to that of Agatharchides.

*twilight lasts three hours after sun-set. These circumstances are introduced to excite the attention of the modern navigator; for notwithstanding they may be false, still there may be certain phænomena that give an origin to the fiction.

If it should now be inquired how the commerce with India could be in this state so late as the reign of Ptolemy Philometor, or why the discoveries of Nearchus had not in all this time been prosecuted? the answer is not difficult. The fleets from Egypt found the commodities of India in Arabia, and the merchants contented themselves with buying in that market, without entering upon new adventures to an unknown coast. There is every reason to suppose that Sabēa had been the centre of this commerce long prior to the discoveries of Nearchus, and the age of Alexander; and it is highly probable that the Arabians had even previous^{to} to that period ventured across the ocean with the monsoon. That they reached India is certain, for Indian commodities found their way into Egypt, and there is no conveyance of them so obvious as by means of Arabia and the Red Sea. The track of Arabian navigators is undoubtedly marked along the coast of Gadrosia, before Nearchus ventured to explore it, for the names he found there are many of them Arabick; and if conjecture in such a case be allowable, I should suppose that they kept along the coast of Gadrosia to Guadel or Possem, and then stood out to sea for the coast of Malabar. My reason for supposing this, is, that Nearchus found a pilot at Possem, which implies previous

^{to} Harris, i. e. Dr. Campbell, Bruce, and Robertson all subscribe to this opinion, and from this fact a strong degree of probability attaches to the account of Plocamus's freed man, for if he was carried to Ceylon by ac-

cident, he would readily find the means of returning by an Arabian vessel, he would likewise learn the nature of the monsoon. See Bruce, vol. i. 369.

navigation, and adds, that from that cape to the Gulph of Persia the coast was not so obscure as from the Indus to the cape.

But if Nearchus reported this, or if the commentaries in the Alexandrian library contained any correspondent information, how could Agatharchides be ignorant of the navigation beyond Sabaea? He was not ignorant of Nearchus's expedition, for he mentions the Ichthyophagi of Gadrosia, with many circumstances evidently derived from Nearchus, and others added, partly fabulous perhaps, and partly true, from other sources of intelligence, such as the histories, journals, or commentaries in the library.

He mentions expressly the manner of catching fish, as described by Nearchus, within nets extended along the shoals upon the coast⁷¹, and the habitations of the natives formed from the bones of the whale. He notices the ignorance and brutal manners of the natives, their dress, habits, and modes of life; and one circumstance he records, which he could not have extracted from Nearchus, which is that beyond the straits which separate Arabia from the opposite coast, (meaning, perhaps, the entrance to the Gulph of Persia,) there are an infinite number of scattered islands very small and very low, and extended along the sea which washes India and Gadrosia⁷², where the natives have no other means of supporting life but by the turtles which are found there in great abundance

⁷¹ He uses the very word, ξύλα, so often commented on in the journal of Nearchus. ⁷² The number of these islands can hardly apply to any but the Laccadives or Maldives. The turtle also and tortoise shell is characteristic.

The mention of Gadrosia naturally induces obscurity and doubt, but the *infinite*

and of a prodigious size. I have thought it necessary not to omit this circumstance, because it appears to me as the first notice, however obscure, of the Lackdives and Maldives⁷³, called the islands of Limyricè in the Periplùs, and distinguished particularly as producing the finest tortoise-shell in the world. The mention of them by Agatharchides appears to be the earliest intimation of their existence. In that sense the fact is curious, and consistent with the purpose of the work, which is at present to shew the progress of discovery, as recorded by contemporary authors.

The extravagances or improbabilities which contaminate several parts of this account in Agatharchides, have been disregarded by design; where knowledge ends fable commences, and much lenity of judgment is due to all writers who speak of distant countries for the first time, or by report. This author does not distinctly mark his Ichthyophagi. They are not merely those of Gadrotia, but others also apparently on the coast of Arabia or Africa⁷⁴. Regions, it is true, where fish rather than bread has ever been the staff of life, and where it continues so at the present hour. Let any reader advert to the manner in which he speaks of the passage out of the Red Sea into the ocean, and he cannot fail to observe, that by giving the African coast an easterly direction, without notice of its falling down to the south, the commerce of that day had not yet passed cape Guardafui.

⁷³ Χρυσονηστικὴ is by Salinus, p. 997. τὰς περικαπίας αὐτῆς τὰς Λιμυρίκας. Perip. supposed to relate to the Chryse of Ptolemy, p. 32. i. e. Malacca, the Golden Chersonese. But it is coupled with the islands of Limyricè. X. lib. iii. p. 203. ed. Weissl. Λέων, τὰς χρυσονηστικὰς καὶ τὰς νήσους θρηνουμένας.

Single ships", or a few in company, might have doubled that promontory and stood to the south, and others of the same description might even have reached India. Some obscure accounts from these were possibly conveyed to Alexandria, and from that source might have been recorded by Agatharchides, but these are all very different from his description of Sabēa, and comparatively vague or obscure. Of the trade to Sabēa he speaks distinctly, as a regular established commerce; so far his knowledge was genuine, beyond that it is precarious. This is an opinion collected from a full consideration of the work itself, and to which no one, perhaps, after a similar attention would refuse to subscribe.

It has been thought of importance to detail these particulars from Agatharchides, because he is the genuine source from which Diodōrus, Strabo, Pliny⁷⁵, Pomponius Mela, and Ptolemy have derived their information. Diodōrus lived in the beginning of the reign of Augustus. He has copied the whole of Agatharchides, so far as relates to the Ichthyóphagi, Troglodytes, Ethiopians, and Arabians, in his third book. Strabo who lived to the end of Augustus's

⁷⁵ It is everywhere apparent, that Ptolemy Philadelphus was more ardent in discovery than his successors. The Greeks who had been in Abyssinia, as recorded by Pliny, vi. 35, were all posſibly sent by him, as Dálion, Aris-tócreon, Bion, Básilis, and Simónides; and Timotheus his admiral had certainly gone down the coast of Africa; for to him Pliny attributes the first mention of Cernè or Madagascar. But what is here asserted is meant only to say, that no trade on that coast existed in consequence of this discovery, as late as

Agatharchides; and even in the age of the Periplūs the trade reaches no farther than Rhaptum and Menuthias, Zanguebar, in south lat. $6^{\circ} 0' 0''$. whereas the north point of Madagascar is in lat. $12^{\circ} 0' 0''$. Ptolemy also only goes to Praſum, lat. $15^{\circ} 0' 0''$.

⁷⁶ Pliny rather accords with Agatharchides than copies him; he seems to have gone to the source; — those Greeks I mean who entered Ethiopia in the age of Philadelphus. See lib. vi. 35.

reign", has followed Agatharchides in regard to the same countries, in his sixteenth book, and has added little to our knowledge of Arabia, but the expedition of *Elius Gallus* into that country. He has little more express concerning the navigation down the coast of Africa, and eastward he stops at *Sabaea* with his author. On the coast of *Gadrosia* he has followed *Nearchus* more faithfully than Agatharchides, but has no mention of the *Lackdive Islands*; and the little he says of *Taprobana*, is a proof that it was known by report, but not yet visited. Pliny and Pomponius Mela in many detached parts tread the same ground, and copy the same author.

But if Agatharchides lived under *Ptolemy Philométor*, it is natural to ask, had nothing been done during 170 years, towards further discovery by the fleets that sailed annually from Egypt? The answer is, that whatever was done is not recorded; the course of discovery was doubtless in progression; but there is a great difference between effecting the discovery, and bringing it into general knowledge, or making it a part of history. It is possible, also, that the sovereigns of Egypt were more jealous of the trade than am-

" The Romans do not appear a commercial people, because their great officers and their historians are too much attached to war, and the acquisition of power, to notice it. All, therefore, that we hear of commerce is obliquely, but the wealth of merchants was proverbial. (See Horace, lib. iii. od. 6. l. 30. See Cicero, who says, in contempt indeed, is such a man who was a merchant and neighbour of Scipio, greater than Scipio, because he is richer?) But attend only to the merchants who followed the armies, who fixed in the provinces subdued or allied, the Italici generis

homines, who were agents, traders, and monopolists, such as Jugurtha took in Zama, or the 100,000 that Mithridates slaughtered in Asia Minor, or the merchants killed at Genabum [Orleans], Cesar Bell. Gall. and you see the spirit of adventure, and the extent of commerce at a single glance. (See also the Letters of Cicero while proconsul of Cilicia.) Dr. Campbell, in his Political Survey, has proved their conduct on this matter in regard to Britain, and the present work will give a most extraordinary specimen of it in Egypt.

bitious of the honour ; and the later princes were more likely to cramp commerce by extortion, than to favour it by protection. The Phenicians had manifestly a share in the profits from its commencement, and it was not unlikely that the Romans might have felt this as an additional incentive for the subjugation of Egypt, if they had been fully informed of the means it afforded for adding to the wealth and aggrandisement of the republic.

It is not meant, therefore, to deny the extension of the voyages progressively, either to the east or the south ; for as long as there was any vigour in the government of Alexandria, the trade on the Red Sea was a favoured object. We learn from Strabo and Diodorus, a circumstance not mentioned in Agatharchides, and probably later than his age, that the Nabathéans at the head of the gulph had molested the fleet from Egypt by their piracies, and had been suppressed by a naval force fitted out for that purpose. This, at the same time it proves the attention of the Egyptian government to this trade, proves likewise that the fleets still crossed the gulph from Myos Hormus or Berenice, and did not strike down at once to Mûsa or Ócelis, as they did in the age of the Periplûs.

This mark of attention also adds highly to the probability, that some progress had been made to the south, down the coast of Africa ; for there, from the first mention of it, there seems always to have been a mart for Indian commodities ; and the port of Mosyllon, as appears afterwards by the Periplûs, was a rival to Sabêa or Hadramant. Mosyllon was under the power of the Arabian king of Maphartis, in the same manner as the Portuguese found that nation masters of the coast of Africa, fifteen centuries later, and the convenience of these possessions to the Arabs is self-evident ; for

for as vessels coming with the monsoon, for the Gulph of Persia make Maskat, so those bound for Hadramant or Aden run down their longitude to the coast of Africa; here, therefore, from the earliest period that the monsoons were known to the Arabians, perhaps much prior to Alexander, there would be marts for Indian commodities; and here it is highly probable the fleets from Egypt found them, when the Sabæans were too high in their demands.

That this commerce had taken place soon after the time of Agatharchides may be collected from Strabo, who cites Artemidorus to prove that there was a trade on the coast of Africa as low as the Southern Horn. He mentions, indeed, that at the straits of the Red Sea the cargo was transferred from ships to boats or rafts, which, though it manifests that the navigation was only at its commencement, still proves its existence. He does not name Mosyllon, but the Periplûs, by noticing that several articles were called Mosyllitick, demonstrates, that a commerce had been carried on at that port previous to its own age, and that Indian commodities were sought on that coast before they were brought immediately from India. If there were such a mart, this must be a necessary event, for in the first instance the trade of Sabæa was a monopoly, and if the sovereigns of Aden or Maphartis had opened the commerce, either in their own country or Africa, it would draw a resort thither as soon as the port could be known, or the voyage to it be effected. The date of this transaction it is impossible to ascertain, but a variety of circumstances concur to shew that it had taken place previous to the discovery of the monsoon by Hippalus.

HIPPALUS.

VIII. THE discovery of Hippalus opens a scene entirely new to our contemplation ; and if it has appeared that hitherto there are only two sources of information, the Macedonians and Agatharchides ; if it has been shewn that all the authors between Agatharchides and the discovery, speak the same language ; it will now be still more evident, that a new era commences at this point, and that the *Periplūs*, Pliny, and Ptolemy are as uniform in one system as their predecessors were in another, previous to the discovery.

Dodwell has observed, with his usual acuteness, that it is no proof that the *Periplūs* is contemporary with the age of Pliny, because he mentions the same sovereigns, in the different countries of which it treats ; for he adds, 'Ptolemy notices the very same, Ceprobotas in Limýricè and Pandion in Malabar. He supposes, therefore, that the *Periplūs* copied Pliny or Pliny's authorities, and that the same princes might be reigning from the time of Vespasian to the reign of Adrian. But would not this correspondence of the three be equally consistent, if we suppose them all to have but one source of information ? Dodwell would subscribe to this in regard to Pliny and Ptolemy, whose age is known, but he refuses this solution to that of the *Periplūs*, the date of which he chooses to bring down as low as Verus. Of this more in its proper place.

The truth is, that there are no data for fixing the discovery of Hippalus with precision. It is certainly subsequent to Strabo whose

death is placed", anno 25. P. C. for Strabo who was in Egypt with Elius Gallus must have heard of it, and to all appearance it must have been later than the accident, which happened to the freedman of Annua Plocamus, who, while he was collecting the tribute on the coast of Arabia, was caught by the monsoon and carried over to the island of Ceylon. This happened in the reign of Claudius, under whom Plocamus was farmer of the revenue in the Red Sea. The reign of Claudius commences in the year 41 of our era, and ends in 54. Let us assume the middle of his reign, or the year 47, for this transaction, and as Pliny dedicates his work to Titus the son of Vespasian, if we take the middle of Vespasian's reign it coincides with the year 73⁷². This reduces the space for inquiry within the limits of twenty-six years. From these we may detract the first years of Vespasian, which were too turbulent for attention to commerce, with the two years of Galba, Otho, and Vitellius; Nero reigned fourteen, and in the early part of his reign, or the six last of Claudius, the date might be fixed with the greatest probability, because, if we suppose the return of the freedman of Plocamus, the embassy that accompanied him, or the knowledge he acquired to be a cause, or in any degree connected with the discovery, this space confined to about ten years is the most consistent of all others, to allot to this purpose⁷³. Another fact connected with this is, the profusion of Nero in cinnamon and aromatics,

⁷² Blair's Chronology says twenty-five years, A. C. which is impossible, for Augustus subdued Egypt, anno 30, A. C. and Strabo must have been in Egypt with Gallus in twenty-seven, or twenty-eight, A. C. He could not write

his work between that and twenty-five.

⁷³ Salmatius says, 77. 830 anno urbis conditae, p. 1186.

⁷⁴ Harris fixes Hippalus's discovery in the reign of Claudius, vol. i. 431.

at the funeral of Poppea¹¹. An extravagance, wanton as it is, which bespeaks something like a direct importation of the material. And we are likewise informed by Pliny, that he sent two centurions from Egypt up into Ethiopia to obtain a knowledge of the interior; an inquiry naturally attached to the discoveries on the coast.

The usual date attributed to the discovery of Hippalus is the reign of Claudius. Dodwell and Harris are both of this opinion, and the latter, or rather Dr. Campbell his editor, has treated this subject so ably, that if it were not necessary for the illustration of the work before us, it would have been sufficient to refer to his inquiries, rather than to tread the ground again which he has occupied. Let us assume then the seventh year of Claudius¹², answering to the forty-seventh of the Christian era, for the discovery of Hippalus, and the next object of inquiry will naturally be the date of the work which we are to examine.

AGE OF THE AUTHOR OF THE PERIPLÙS.

IX. THE learned Dodwell and Salmasius affix two very different dates to the Periplùs, and between two such able disputants it is easier to chuse than decide. My own observations lead me to prefer the opinion of Salmasius, but not so peremptorily as to

¹¹ See Pliny, lib. xii. c. 18. the passage itself is obscure, it proves that Pliny knew, (what was not known in the prior age,) that cinnamon and cassia were not the native produce of Arabia. But it does not fully prove that the merchants imported them from more distant parts.

¹² Dodwell says, in primis annis Claudii, and supposes that Pliny takes his account of Hippalus from a work which Claudius himself wrote; certain it is, that the memory of Claudius was revered by the Alexandrians, and not improbably by reason of this discovery and the prosecution of it.

Suppose the question cleared of all its difficulties, and there is a hint dropt by Dodwell, that I should wish to adopt, if I were not convinced that the author of the *Periplūs* really visited several of the countries he describes.

Dodwell supposes that the work was compiled by some Alexandrian⁸³ from the journal of Hippalus; and so far, it is just to allow, that the parallel information in Pliny and the *Periplūs* does not appear so properly to be copied by either from the other, as from some authority common to both. But that the author, whatever he copied, was a navigator or a merchant himself, cannot be denied, when we find him speaking in the first person upon some occasions, and when we read his account of the tides in the gulph of Cambay, which is too graphical to come from any pen but that of an eye-witness.

This author and Pliny agree in the description of Hadramant⁸⁴ and Sabbathā, in the names of the kings and of the ports on the coast of Malabar, as Muziris and Cottonara, and of the Sinthus; in the departure of the fleets from Ocelis and Cana, and a variety of other circumstances; but their most remarkable correspondence is in their history of the Spikenard and Costus⁸⁵; both mention the

Ganges

⁸³ Certe Hippali personae convenient ex-amissum hujus itinerarii notæ. Nomen ipsum-illum Alexandrinum fuisse prodit, nec Ro-manum scilicet, nec Ægyptium, sed plane Græcum, qualia erant colonorum Macedonum Alexandrinorum. *Dissert.* p. 102.

⁸⁴ Ταῦτα δὲ ἀντὶ μεθύσιος ἡ Μυτρόπολις Σάβαντι οὐ καὶ βασιλεὺς καποκοῖς, πᾶς δὲ γυναικί-ος οὐ τῇ χειρὶ λίθαντος οὐδὲ ἀντὶ μονεγὸς ἴνδοχρίον-ιούστας καρέλοις τοι καθίσαις ἵτοπιας διέμε-

τίσαις, οὐδὲ αὐτοῖς καὶ πλόοις. *Perip.* p. 15.

Tus collectum Sabota camelis corymbitetur portâ ad id unâ patente, digredi viâ capital. *Plin. Salmas.* 492.

⁸⁵ Pliny, lib. xii. c. 12. Ed. Hard. De folio Nardi plura dici par est ut principale in Unguentis. ... alterum ejus genus apud Gangem nascens; damnatur in totum, Ozænitidis nomine, virus redolens.—The first is the Gangitica of the *Periplūs*, written also Gapanica. The latter

Ganges and Ozēnē as the marts for the former, and the Pattalēnē for the latter. The intelligence is undoubtedly the same in both, and yet there is no absolute proof that either copied from the other. But those who are acquainted with Pliny's method of abbreviation would much rather conclude, if one must be a copyist, that his title to this office is the clearest. Wherever we can trace him to the authorities he follows, we find that narratives are contracted into a single sentence, and descriptions into an epithet. This appears to me fully ascertained in the present instance, but conclusions of this sort are not hastily to be adopted.

Pliny perished in the eruption of Vesuvius the same year that Vespasian died, which is the seventy-ninth of our era; and if we place the discovery of Hippalus in forty-seven, a space of thirty years, is sufficient for the circumstances of the voyage, and the trade to be known in Egypt; from whence to Rome the propagation of intelligence is more natural than the reverse. But if we should be disposed, with Dodwell, to carry the date of the Periplūs down to the reign of Marcus and Lucius Verus⁶⁶, that commenced in 161;

latter is from the Ozēnē of the Periplūs; which Harduin is so far from understanding, that he writes Ozennitidis ab οζενη, quod odore fœdo nares feriat. The Cossus Pliny mentions as obtained at Patala. Primo statim introiit amnis Indi in Patale Insula, where the Periplūs also finds it. See Perip. p. 28, 36. compared with p. 32. If these passages of the Periplūs had stood contiguous, as they do in Pliny, the proof would have been complete; scattered as they are, it is nearly so.

⁶⁶ The passage in the Periplūs runs thus: Χαριβαλ . . . συνχρονις αγδεοι φιλοι την αυτορετερην p. 13, that is, Charibael king of Saphar, is upon friendly terms with

the Roman emperors, and receives presents and embassies from them. The word *emperors*, in the plural, induces Dodwell to carry down the date till he meets with two joint emperors reigning together. That a plural does not require this we may learn from Dionysius Perieg. who says of Rome, μονάρχης των αυτορετερην, whence Barthius draws a similar conclusion, that Dionysius lived under the Antonines; but Pliny writes, Dionysium, quem in orientem præmisit Divus Augustus, lib. vi. 27. a clear proof that Dionysius lived under Augustus. This argument is from Vossius, Prof. ad Dionys. Perieg. 44.

and at the distance of almost a century, its correspondence with Pliny is by no means equally consonant.

The strength of Dodwell's argument lies in the report of the *Periplūs*, concerning the destruction of Arabia Felix, or Aden¹⁷, by the Romans; and the mention of the coast of Africa being subject to the sovereign of Maphartis, king of the *first*¹⁸ Arabia. The title of *first* or *second* annexed to a province, is a division which certainly seems of later date under the emperors, than any period that would suit the system of Salmasius; but there is reason to suspect the text, or the rendering of it; and no authority which appears sufficient to prove that the territory of Maphartis ever was a Roman province in any age; or even if it might be so called, as being tributary, no reason can be given why it should be distinguished as the *first*.

In regard to the destruction of Aden by Cesar, the author of the *Periplūs* says¹⁹, it happened not long before his time. But what Cesar this should be is a great difficulty. Dodwell, who supposes that it must be by some Cesar who destroyed it in person, can find no emperor to whom it can be attributed prior to Trajan. But Trajan never was on the southern coast of Arabia; he entered the country from the Gulph of Persia, but never penetrated to the southern coast by land, and never approached it from the Gulph of Arabia. It is much more just, therefore, to conclude that Aden²⁰ was destroyed by the command of Cesar, than by

¹⁷ Page 15. ¹⁸ Page 10. ¹⁹ Page 15. ²⁰ Page 15. tainly correspondent, or very nearly so. It is

The proof that Aden is the Arabia Felix of the *Periplūs*, rests upon the interpretation of Aden=delicie, by Huet, and admitted by d'Anville, from its situation, which is cer-

Cesar in person; and if so, any Cesar whose age will coincide with other circumstances may be assumed. Many probabilities conspire to make us conclude that this was Claudius.

The Romans, from the time they first entered Arabia under Elius Gallus, had always maintained a footing on the coast of the Red Sea. They had a garrison at Leuké Komé ^{Leuké Komé}, where they collected the customs, and it is apparent that they extended their power down the gulph, and to the ports of the ocean, in the reign of Claudius, as the freedman of Annus Placanus was in the act of collecting the tribute there, when he was carried out to sea. If we add to this the discovery of Hippalus in the same reign, we find a better reason for the destruction of Aden at this time, than at any other. Aden had been one of the great marts for the Indian commerce, and if Claudius, or the prefect of Egypt, was now disposed to appropriate this trade to the Romans, this was a sufficient cause for ruining Aden, in order to suppress rivals or interlopers. The jealousy or opposition of Aden to the new discovery would naturally afford ground for quarrel, and if not, the Romans knew how to provoke one whenever it suited their interest.

These considerations are offered as a probable answer to the weightiest of Dodwell's arguments; his long and tedious disquisition concerning Palesimundus, will defeat itself. It stands thus: having determined that the age of the *Periplūs* must be that of Marcus and Lucius Verus, he is obliged to suppose, that the author could not have seen the work of Ptolemy, who lived in the reign of Adrian. Now the reasons for establishing the priority of the

²⁰ A port north of Jidda and Yambo.

Periplūs are these; first in going down the coast of Africa, the extent of discovery is Rhapta, or about 15° S. of South, but in Ptolemy a farther progress is made to a certain point, about 15° 30' South. This naturally appears a progression; but why is the later writer more forcible? stronger follows; the Periplūs Aytes Ceylān, Pale-simundus, and adds, "it is the same island as the ancient called "Taprobana." But in the time of Ptolemy it had acquired a third name, Sálice, and he accordingly writes, "Sálice, which was "formerly named Pale-simundus." It follows then, that the author who writes Pale-simundus must be prior to the author who writes Sálice. . Dodwell, in order to obviate this self-evident truth, in the true spirit of system, is necessitated to argue, that the author of the Periplūs, though an Alexandrian, had never seen the work of Ptolemy, who was of Alexandria also; but that he copies Pliny, who was a Roman; and then to support this strange hypothesis, he is compelled to maintain, that the Pale-simundus of Pliny is not Ceylon, or the Taprobana of the ancients, but the Hippocura of Ptolemy on the coast of Malabar. How these assertions could be deemed authentic by any one, when Dodwell wrote, is incomprehensible, unless we calculate the dignity which attaches to erudition. But we now know that Sálice is derived from Sala-bha²², the Sanskrit name of Ceylon, and Pale-simundus, from Parashri-mandala, the country of Parashri²³, or the Indian Bacchus. Both are native names, and voyagers at different times acquired both from the

²² Page 35.

²³ Paulino, p. 108. Sala is manifestly the Patri, The king, My Rām, worships Bac- root of Sálice, of Selendib, or Scendive and chut, Ceylon.

natives. When the island of Ceylon comes under consideration in the course of the narrative, more will be said on this subject, at present this is ample proof, that the merchants in the age of the author called Ceylon *Palesimundus*, and that in Ptolemy's age it was styled *Sálicè*; if Ptolemy then allows the former to be first in use, the *Periplùs* must of necessity be prior to his publication.

Dodwell says⁹⁴, that none of Ptolemy's astronomical observations are earlier than the ninth year of Adrian, answering to 123, A. D. If then the first year of Marcus and Lucius Verus is 161, A. D. We add nearly forty years to the antiquity of the *Periplùs* at one step, it could not be later than 123, and how much earlier must be the next object of our inquiry. On this head probability and conjecture must supply the place of proof. The author speaks of the discovery of Hippalus, without specifying its date, or its distance from his own time. Some considerable interval is manifest from his expression, when he says, "from the time of Hippalus to this day some sail straight from Kanè, &c."⁹⁵ but what space to allot to this interval is by no means evident. From the seventh of Claudius, the assumed epoch of the discovery, to the ninth of Adrian⁹⁶, is seventy-eight years, a space in which we may fix the publication of the *Periplùs*, so as best to suit with other circumstances, and there is one reason to fix it considerably previous to Ptolemy⁹⁷, which is this; Ptolemy professes to derive his

⁹⁴ *Dissert.* p 89.

⁹⁵ Page 32.

⁹⁶ Ptolemy, published much later, for he lived till 161 at least, near forty years after the 9th of Adrian.

⁹⁷ Salmasius writes, *hinc liquet auctorem esse vetustissimum & longe Ptolemae anterorem*, at the conclusion of his argument on the temple of Augustus, in *Limyricè*, *Plin. Ex. p. 1186.*

information from the merchants of Egypt, and the *Periplūs* seems to be the very work he would have consulted. If he had known it, and yet one circumstance is sufficient to prove that it never came under his contemplation. His error of extending the coast of Malabar west and east, instead of north and south, is notorious; this he could not have done if he had consulted the *Periplūs*, for there it is laid down in its proper direction. This induces a belief, that it was not published in, or near the age of Ptolemy, but so much prior as to be neglected, or from its compass and contents not to have obtained much notice at the time of its publication. It is not easy to account for Ptolemy's disregard of it on any other ground, unless he knowingly slighted it, and preferred the accounts of later voyagers.

But in order to see the state of things suitable to the internal evidence of the *Periplūs*, we must take a view of the Roman government in Egypt. Egypt became a Roman province in the year thirty before our era, and from the moment it was subdued, Augustus planned the extension of the Roman power into Arabia and Ethiopia, supposing that Arabia produced spices, and Ethiopia gold, because these were the articles brought out of those countries into Egypt. The avidity with which this plan was adopted may be conceived by observing that, within ten years after the reduction of Egypt, Gallus had penetrated into the heart of Arabia, and Petronius had advanced eight hundred and seventy miles above Syène into Ethiopia, and reduced Candace the queen of that country to the condition of a tributary.

The expedition of Petronius is fixed to a certainty in 21.
A. C. because the ambassadors of Candace found Augustus at Samos.

Samoa, where he was that year; and that of Gallus⁹⁹, was contemporary, because his absence with a part of the troops of the province was the inducement for Candace to insult the government. And it must have been but a very few years after this, that Strabo went up to Syene with Elles Gallus¹⁰⁰, who was then become prefect. Upon this occasion he observes, that he had informed an hundred and twenty ships now sailed from Myra Hormus annually for India, whereas, under the Ptolemaic, a very few only had dared to undertake that voyage¹⁰¹.

*The embassies from Porus and Pandion to Augustus, mentioned with so much ostentation by the historians, afford considerable proof of the progress of Roman discovery in the east; and the vessels which conveyed these ambassadors from the coast of Malabar must have landed them either in Arabia, or in the Gulph of Persia, or the Red Sea; the conveyance also of the freedman of Placamus back again from Ceylon to Egypt, proves that the voyage was performed previous to the discovery of Hippalus. Agreeably, therefore, to the assertion in the Periplūs we ought to suppose that none of these conveyances were performed by means of the monsoon, unless we should allow the vessels to be Indian or Arabian, for both these nations appear visibly to have known the nature of these winds long before the Romans were acquainted with them. From these circumstances we may collect the extreme desire of Augustus to extend his knowledge and his power towards the east, and though the inert reign of Tiberius, or the wild tyranny of Caligula, furnish no documents of a further progress,

⁹⁹ Strabo, lib. xvii. p. 819.

¹⁰⁰ Strabo, lib. ii. p. 118.

¹⁰¹ Ολύμπον τε κατέπει. Ibid.

We may conclude, that the arrival of the Romans was still intent on promoting a discovery of a communication with which the embassies of their own government were immediately connected. We must suppose, that the Roman fleet was superior in numbers, and on the southern coast of Arabia, before any of the states on that coast could become tributary, and tributary they remained, before the reign of Claudius, or Plocamus could not have been farmer of the revenue.

When the freedman of Plocamus returned from Ceylon, if he came in a Roman vessel he must have coasted his whole voyage; but as the king of Ceylon sent four embassies with him to Claudius, and a rajah¹⁰⁰ to take charge of the whole, we must conclude that they came in an Indian vessel to Arabia, and that the freedman learned the nature of the monsoon in the course of his navigation; this is so near in point of time, that we cannot be mistaken in supposing it, connected with the attempt of Hippalus, and in consequence of it, the revolution in the whole course of Oriental commerce.

The advantage which Claudius made of this discovery, and the prosecution of it so beneficial to Egypt, rendered his name dear to the Alexandrians; his writings were rehearsed in their museum, and the account he gave of this commerce is justly believed by Dodwell to be the source of Pliny's information¹⁰¹.

It is this circumstance which above all others induces me to fix the destruction of Adea under Claudius, or at least under Nero, whose

¹⁰⁰. Principe eorum Rachis, Pliny. I have no hesitation in subscribing to the opinion of

¹⁰¹ Dodwell, Dissert. p. 93. from Suetonius Claud. c. 42. But this was not their own Paedius, but Rachis is Rajah.

mind was equally fixed on Ethiopia, Arabia, and India, as the fountains of all the treasures of the east. The more important every step grew in pursuing this commerce to the source, the greater temptation there was to suppress every power which could come in competition. One thing is evident, Aden was not destroyed by any Cesar in person; for we cannot find in all history a Cesar that ever visited the southern coast of Arabia. If it was by the command of Cesar, it suits no one so well as Claudius or Nero, or if they are too early, there is no other but the reign of Adrian to which it can be attributed. Adrian was in Egypt himself; his system was all directed to regulation and improvement of the provinces; this might be a part of his plan. But there is nothing in the *Periplūs* itself to make us adopt this period and much to contradict it.

It has been necessary to investigate this fact with accuracy, because the date of the work depends upon it; for at whatever point we fix the destruction of Aden, very near to that we must fix the *Periplūs*; as the author intimates that it was not long before the period in which he writes. It is not satisfactory to leave this question resting upon probabilities only. But where history is silent, probability is our only guide, and correspondent circumstances are the best foundation of probability.

From these premises the reign of Nero appears most accordant to the internal evidence of the work itself, or if the reign of Adrian should be preferred, it must be the year he was in Egypt, which is the tenth of his reign, and answers to the year 126, A. D. The objection to this is its coincidence with the age of Ptolemy, which for the reasons already specified can hardly be reconciled

reconciled to consistence. I assume, therefore, the reign of Claudius for the discovery of Hippalus, and the tenth year of Nero for the date of the *Periplūs*, leaving the question still open for the investigation of those who have better opportunities for deciding upon its precision.

INTERCOURSE WITH INDIA ANTECEDENT TO HISTORY.

X. IN entering upon this subject two considerations present themselves to our view, which must be kept perfectly separate and distinct: the first is, that the intercourse itself is historical; the second, that the means of intercourse can only be collected from circumstances: the former admits of proof; the latter is at best hypothetical. I can prove that spices were brought into Egypt, (which implies their introduction into all the countries on the Mediterranean,) and I argue from analogy, that Thebes and Memphis in their respective ages were the centre of this intercourse, as Alexandria was afterwards, and as Cairo is, in some degree, even at the present hour.

That some Oriental spices came into Egypt has been frequently asserted, from the nature of the aromatics which were employed in embalming the mummies¹⁰⁴; and in the thirtieth chapter of Exodus we find an enumeration of cinnamon, cassia, myrrh, frankincense, stacte, onycha, and galbanum, which are all the produce either of India or Arabia. Moses speaks of these as precious, and appropriate to religious uses; but at the same time in such

¹⁰⁴ Mummia, or Mumia, was once a medicine, certainly not on account of the cedaceous but the aromatic substance.

quantities¹⁰⁵, as to shew they were neither very rare, or very difficult to be obtained. Now it happens that cinnamon and cassia are two species of the same spice¹⁰⁶, and that spice is not to be found nearer Egypt or Palestine, than Ceylon¹⁰⁶, or the coast of Malabar. If then they were found in Egypt, they must have been imported; there must have been intermediate carriers, and a communication of some kind or other, even in that age, must have been open between India and Egypt. That the Egyptians themselves might be ignorant of this, is possible; for that the Greeks and Romans, as late as the time of Augustus¹⁰⁷, thought cinnamon the produce of Arabia, is manifest from their writings. But it has been proved from Agatharchides, that the merchants of Sabēa traded to India, and that at the time when Egypt possessed the monopoly of this trade in regard to Europe¹⁰⁸, the Sabēans enjoyed a similar advantage in regard to Egypt. Of these circumstances Europe was ignorant, or only imperfectly informed; and if such was the case in so late a period as 200 years before the Christian era, the same circumstances may be supposed in any given age where it may be necessary to place them.

There are but two possible means of conveying the commodities of India to the west, one by land through Persia or the provinces on the north, the other by sea; and if by sea, Arabia must in all

¹⁰⁵ Five hundred shekels of myrrh, five hundred of cassia, two hundred and fifty of cinnamon.

¹⁰⁶ See article Kassia Kasia in the list of articles of commerce.

¹⁰⁷ See Strabo, lib. xvi. passim.

¹⁰⁸ Καὶ γὰς δὲ καὶ μορπωλίας ἔχει. Μόνη γάρ

ἡ Αλεξανδρεια τῶν τοιέτων; οὐδὲ τὸ πολὺ καὶ ὑπόδοχον οὐδεὶς, καὶ χρηματα τοῖς ἐκτός. Alexandria has the whole monopoly to herself. She is the receptacle of all [Indian] goods, and the dispenser of them to all other nations. Strabo, lib. xvii. p. 798.

ages have been the medium through which this commerce passed, whether the Arabians went to Malabar itself, or obtained these articles in Carmania, or at the mouths of the Indus.

In order to set this in its proper light, it is necessary to suppose, that the spices in the most southern provinces of India were known in the most northern, and if from the north, they might pass by land; from the south, they would certainly pass by sea, if the sea were navigated. But in no age were the Persians¹⁰⁹, Indians, or Egyptians, navigators; and if we exclude these, we have no other choice but to fix upon the Arabians, as the only nation which could furnish mariners, carriers, or merchants in the Indian ocean.

But let us trace the communication by land on the north: it is only in this one instance that I shall touch upon it; and that only because it relates to an account prior to Moses. Semiramis¹¹⁰ is said to have erected a column, on which the immensity of her conquests was described, as extending from Ninus or Ninivè, to the Itámenes, (Jómanes or Jumna,) eastward; and southward, to the country which produced myrrh and frankincense; that is, eastward to the interior of India, and southward to Arabia. Now, fabulous as this pillar may be, and fabulous as the whole history of Semiramis may be, there is still a degree of consistency in the fable; for the tradition is general, that the Assyrians of Ninivè did make

¹⁰⁹ It is not meant to assert that these and Chinese. The Chinese probably never nations never used the sea; they certainly did, pass the Straits of Malacca, the Malays upon their own coasts, but there are not now, seem in all ages to have traded with India, nor does history prove that there ever were, and probably with the coast of Africa. any navigators, properly so called, in the ¹¹⁰ Bochart, tom. i. p. 109. from Diocletianus.

an irruption into India; and the return of Semiramis¹¹¹ through Gadrosia, by the route which Alexander afterwards pursued, is noticed by all the historians of the Macedonian. If, therefore, there is any truth concealed under this history of Semiramis, the field is open for conceiving a constant intercourse established between India and the Assyrian empire, and a ready communication between that empire and the countries bordering on the Mediterranean. This intercourse would account for the introduction of the gums, drugs, and spices of India into Egypt, as early as the 21st. century before the Christian era¹¹², and 476 years antecedent to the age of Moses.

But this is not the leading character in the accounts left us by the Greek historians¹¹³; they all tend to Phenicia and Arabia. The Arabians have a sea coast round three sides of their vast peninsula; they had no prejudices against navigation either from habit or religion. There is no history which treats of them, which does not notice them as pirates or merchants by sea, as robbers or traders by land. We scarcely touch upon them accidentally in any

¹¹¹ When two fables of two different countries agree, there is always reason to suppose that they are founded on truth: the Mahabharat is perhaps as fabulous as the history of Semiramis; but this work (in Col. Dow's account of it,) specifies, upon a variety of occasions, the great attention of the Indian sovereigns to pay their tribute to their western conquerors. I cannot trace this to its causes or consequence, but it always seems to justify the idea, that there had been some conquest of India, by the nations which inhabited those

provinces which afterwards composed the Persian empire. It is this conquest in which the Grecian accounts of Semiramis and the Mahabharat agree.

¹¹² Semiramis, A. C. 2007. Moses in Midian 1531. Blair.

¹¹³ Herodotus, lib. iii. p. 250. reckons up frankincense, myrrh, cassia, cinnamon, ladanum, (a gum,) and storax as the produce of Arabia: these commodities were brought into Greece by the Phenicians. See also p. 252.

author, without finding that they were the carriers of the Indian ocean.

*

Sabēa¹⁴, Hadramant, and Oman were the residence of navigators in all ages, from the time that history begins to speak of them; and there is every reason to imagine that they were equally so, before the historians acquired a knowledge of them, as they have since continued down to the present age.

It is surely not too much to admit that a nation with these dispositions, in the very earliest ages crossed the Gulph of Persia from Oman to Carmania: the transit in some places is not forty miles; the opposite coast is visible from their own shore¹⁵; and if you once land them in Carmania, you open a passage to the Indus, and to the western coast of India, as a conclusion which follows of course.

I grant that this is wholly hypothetical; but where history stops, this is all that rational inquiry can demand. The first history to be depended on, is that of Agatharchides. He found Sabēa, or Yemen, in possession of all the splendour that a monopoly of the Indian trade must ever produce, and either here or at Hadramant or Oman it must ever have been: these provinces all lie within the region of the monsoons, and there is every reason to imagine that they had availed themselves of these in the earliest ages, as well as in the latest. I conclude that their knowledge in this respect is prior to the building of Thebes; and that if the monopoly on the

¹⁴ Hadramant is the Atromitis of the Greeks; it is nearly central between Sabēa and Oman on the ocean. Oman is the eastern part of Arabia, towards the Gulph of Persia.

Sabēa is Yemen, on the Red Sea, but extends, or did anciently extend, to the ports on the ocean, as Aden; &c.

¹⁵ Strabo, lib. xvi. p. 769. et. seq. 99.

eastern side of the Red Sea was in their hands, that on the western side was fixed at Thebes. The splendour of that city, still visible in its very ruins, is in no other way to be accounted for: it is exactly parallel to the case of Alexandria in a later period; for Alexandria did not trade to India, the monopoly was still in Sabēa when Agatharchides wrote, and the monopoly at Alexandria was as perfect in regard to the Mediterranean, as that of Sabēa was in regard to the Indian ocean. The wealth of the Ptolemies was as pre-eminent as that of the Thebaick Dynasties, and the power and conquests of a Philadelphus or Euergetes¹¹⁶ less fabulous than those of Sesonchosis.

That the Grecian Dynasty in Egypt tried every experiment to evade the monopoly at Sabēa, is manifest from history. The straits¹¹⁷ of the Red Sea were passed, the ports of Arabia on the ocean were explored, the marts on the coasts of Africa were visited, Indian commodities were found in all of them. A proof direct, that the monsoon was at that time known to the Arabians¹¹⁸, though history knew nothing of it till the discovery of Hippalus; that is, till 200 years later: this is the more extraordinary, as the fact had been ascertained in part by the voyage of Nearchus, and as all its consequences would have been explored, if Alexander had lived another year. I always wish to be understood as never asserting

¹¹⁶ Euergetes says, in the Adulitick Inscription, he had reduced the *whole* world to peace. Sesonchosis could do no more.

¹¹⁷ Strabo, lib. xvi. p. 773.

¹¹⁸ I had expected to find an account of the monsoons in the Oriental writers; but as my acquaintance with them by translations only,

must be very confined; I have met with only one instance, and that in a very different region. *Ventus marinus sex integris mensibus regnat in illo, [mari tenebroso,] et tun in alium ventum convertitur.* Al. Ednissi, p. 34. the *Mare Tenebrosum* is at least east of Malacca, if not of China.

that

that the voyage between Egypt and India was utterly unpractised by the Greeks; the evidence is clear, that some few vessels performed it, but they coasted the whole way¹¹⁹: the greatest number is that mentioned by Strabo of an hundred and twenty ships. The expence of such a navigation did not answer; it was found cheaper to purchase Indian goods in the old markets: the passage by the monsoon was never attempted; and the solitary fact of all history, which I can discover, previous to Hippalus, is that in the fabulous account of Iambûlus. I believe that fact, not as performed by Iambûlus, but as an evidence that some such passage had been heard of, that an obscure notion prevailed that it was made from the coast of Africa, and that, therefore, it was interwoven with the piece to give the fable an appearance of reality. I believe it to have had its rise from Arabia; and it is one proof among others, that the Arabians did reach India prior to history, and a sufficient reason why the Greeks found it cheaper to purchase their cargoes in the Arabian markets, rather than to go to India themselves. A truth certainly, if the Arabians sailed with the monsoon, and the Greeks coasted the whole voyage.

These considerations taken in the mass, induce a belief that in the very earliest ages, even prior to Moses, the communication with India was open, that the intercourse with that continent was in the hands of the Arabians, that Thebes had owed its splendour

¹¹⁹ Περιπλωτίζοντις. Periplûs. Strabo does certainly fully mean to say, that a considerable fleet went to India, but not till the Romans were masters of Egypt; and whether they performed the whole voyage, or only to Arabia for Indian commodities, is a question. If we suppose them to reach the mouths of the

Indus, it is the full extent that can be required; for Pliny expressly says, that the ports on the coast of Malabar were only beginning to be known in his age. In what way they sailed previous to the Periplûs will be noticed in its proper place.

to that commerce, and that Memphis rose from the same cause to the same pre-eminence. Cairo succeeded to both in wealth, grandeur, and magnificence; all which it must have maintained to the present hour, if the discoveries of the Portuguese had not changed the commerce of the world; and which it does in some proportion still maintain, as a centre between the east and the Mediterranean. The essential difference between these three capitals and Alexandria, proves past contradiction, the different spirit and superior system of the Greeks. These three capitals were inland for the sake of security: a proof that the natives never were navigators or sovereigns of the sea. The Greeks were both; and the capital of the Ptolemies was therefore Alexandria. Their fleets were superior to all that had ever appeared on the Mediterranean; and the power of their kingdom such, that nothing but a succession of weak and wicked princes could have destroyed it. While Egypt was under the power of its native sovereigns, Tyre, Sidon, Aradus, Cyprus, Greece, Sicily, and Carthage were all enriched by the trade carried on in its ports, and the articles of commerce which could be obtained there and therc only; the Egyptians themselves were hardly known in the Mediterranean as the exporters of their own commodities; they were the Chinese of the ancient world, and the ships of all nations, except their own, laded in their harbours.

The system of the Ptolemies was exactly the reverse. Alexandria grew up to be the first mart of the world, and the Greeks of Egypt were the carriers of the Mediterranean, as well as the agents, factors, and importers of Oriental produce. The cities which had risen under the former system, sunk silently into insignificance; and

so wise was the new policy, and so deep had it taken root, that the Romans, upon the subjection of Egypt, found it more expedient to leave Alexandria in possession of its privileges, than to alter the course of trade, or occupy it themselves. Egypt, in strict propriety, was never a Roman province, but a prefecture, governed, not by the senate but the emperor himself. No pretor or proconsul ever had the command; no man above the equestrian order was ever prefect; no Roman¹²⁰ ever entered the country without the express licence of the emperor. These circumstances are particularized to shew the wisdom of the Greeks in their establishment of the system, and the wisdom of the Romans in contenting themselves with the revenue, rather than the property of the country¹²¹. This revenue, amounting to more than three millions sterling, they enjoyed for more than six hundred years¹²²; and till the moment of the Arabian conquest, Alexandria continued the second city of the empire in rank, and the first, perhaps, in wealth, commerce, and prosperity.

These considerations are by no means foreign to our purpose: it is the design of this work to exhibit the trade with India under

¹²⁰ One charge brought against Germanicus by Tiberius, was his going into Egypt without permission.

¹²¹ It does not appear that any Roman in Egypt was allowed to engage in commerce. In the early part of their government at least, all the names we meet with in the trade of the Red Sea, Africa, and India, are Greek: Arrian, Dionysius, &c. &c.

¹²² It is the stability of the Roman conquests which distinguishes them from those of other nations. If we place the meridian power of Rome in the age of Augustus, it was 700 years in rising, and 1400 years in falling. The sovereignty of Egypt, for 600 years, is of greater duration

than that of any native or foreign dynasty not mythological; and this sovereignty, notwithstanding particular intervals of tyranny, does seem upon the whole to have been exercised for the good of the people, which is the end of all government. When Egypt fell, its prosperity, though impaired, was probably superior to that of any other province of the empire. The revenue I take at a medium from the calculation of Strabo, who says, that under Auletes, the worst of the Ptolemies, it was 2,421,875 l.; but he adds, that the Romans managed it to much greater advantage, and even doubled it. Strab. lib. xvii. p. 798.

every point of view in which it was regarded by the ancients; but if it were not my determination to close my researches with the voyage of Gama, I could now shew how a contrary policy has brought the richest country in the world to its present state of misery. Policy, I say, because, though the discovery of Gama must have injured Egypt, it could not have reduced it to desolation. It is the conquest of Selim, and a divided power between the Porte and the Mameluks, which has sunk a revenue of three millions to a cypher²³; a policy, in fact, which has cut down the tree to come at the fruit, which is not content with the golden egg, but has killed the bird that laid it²⁴.

²³ There is a tribute paid by the Mameluks to the Pacha of Egypt, but it never reaches Constantinople, as there are always charges to set off against it.

²⁴ Exception, perhaps, may be taken to what has been said in regard to the Egyptians never appearing in the Mediterranean as a naval power. The expression is meant to apply to that country only while under its native sovereigns. As subject to the Persians, Macedonians, and Romans it furnished large fleets.

The names of places will be distinguished by capitals in the margin; in which form the Greek sound and Greek orthography will both be preserved. The Latin or modern orthography will be followed in the text, to avoid the appearance of singularity.

Marks of tones.

- ' The accent, as Azánia.
 - ^ The note when e final is pronounced long or short, as Calpè.
 - ^ The note of a long vowel or diphthong in the Greek, as Opônè, Nêssa, Niloptolemèon, Kuenion.
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THE
PERIPLUS
OF THE
*ERYTHREAN SEA.

BOOK II.

Introduction. — I. *Myos Hormus.* — II. *Berenicè.* — III. *Inland Navigation to Coptus.* — IV. *Ptolemáis Therón.* — V. *Aduli, Abyssinia.* — VI. *Diræ, Straits of Bab-el-Mandeb.* — VII. *Abalités.* — VIII. *Malão.* — IX. *Mündù.* — X. *Mosylon.* — XI. *Niloptolemeon.* — XII. *Marts, Tapatégè, Daphnôna Micron, Elephas Prom. Rivers, Elephas, Daphnôna Megan, or Acannai.* — XIII. *Tabai.* — XIV. *Opónè.* — XV. *Apócpa.* — XVI. *Little Coast, Great Coast.* — XVII. *Serápión, Nicón, Seven Rivers.* — XVIII. *The New Canal or Mombasa.* — XIX. *Rhapta, or Quiloa.* — XX. *Mentúkhéfias, or Zanguebar Islands.* — XXI. *Pra sum of Ptolemy.* — XXII. *Menútbias of Ptolemy.* — XXIII. *Limit of Ancient Discovery.* — XXIV. *Herodotus.* — XXV. *Ptolemy.* — XXVI. *Discoveries of the Portuguese, Covilham, Marco Polo.* — XXVII. *Voyages of Diaz and Gama.* — XXVIII. *Arabian Settlers Ancient and Modern on the Coast of Zanguebar.*

“ Orientalem oram Africæ fulcavit Auctor Peripli, cuius auctoritas majoris est
 “ facienda quam cæterorum omnium, utpote qui solus veritati consentanea
 “ scripsit.” Vossius ad Melam. p. 595. ed. Varior. Lugd. 1722.

THIS object proposed for consideration in the second book is the navigation of the ancients from Myos Hormus in the Gulph of Arabia, to the Promontory of Rhaptum^{*} on the coast of Africa. Myos Hormus lies in the twenty-seventh degree of northern latitude, and Rhaptum will be fixed near ten degrees to the southward of the equator; consequently we have a space of above two thousand five hundred miles to examine, involved in such obscurity, that without recourse to modern discovery, the navigation of the ancients is inexplicable.

The Periplûs, which has been assumed as the basis of our disquisition, has a claim to this preference, not only as the most ancient but the most specific account extant; for notwithstanding particular places may have been noticed in treatises of a prior date, the line of coast which it embraces is to be found nowhere previously in detail; and the circumstances which it particularizes bear such a stamp of veracity, as to assure us, that if the voyage was not performed by the writer, it is at least delineated from authentic documents.

* Ptolemy writes both Rhapta and Rhaptum, the Periplûs always Rhapta, plural.

I. The survey commences from Myos Hormus¹, a port chosen by Ptolemy Philadelphus for the convenience of commerce, in preference to Arsinoe² or Suez, on account of the difficulty of navigating the western extremity of the gulf.³

The name of this port shews its origin to be Greek: it signifies the harbour of the Mouse; an appellation which it afterwards changed for the harbour of Venus. But the former is the more prevalent, and the latter is recorded by Agatharchides only and his copyists. Its situation is determined by three islands, which Agatharchides mentions; known to modern navigators by the name of the Jaffateens, and its latitude⁴ is fixed with little fluctuation in $27^{\circ} 0' 0''$, by d'Anville, Bruce, and de la Rochette. The presumption in favour of de la Rochette's accuracy is natural, as he had the charts and journals of several English navigators before him, and the position of the islands⁵ with the indenture of the coast, is such as would sufficiently correspond with what the ancients called a port. Strabo describes the entrance as oblique⁶, which was perhaps effected by the site of the island at the entrance; and he notices that the ships which sailed from Berenice lay at this port till their cargoes were prepared.

II. The same reason which induced Philadelphus to form the port of Myos Hormus, led him afterwards to the establishment of Berenice,⁷

¹ De la Rochette has made two ports of the Myos Hormus and Aphrodites Hormus of Strabo, but they are both the same, if Strabo is to be interpreted by Agatharchides, whom he copies; his translator indeed says, Muris statio *alague Veneris*, but the text does not require the distinction. See Hardouin, not. ad lib. vi. Plin. &c. vi. The Myos Hormus of de la Rochette I should prefer for the true position.

² Ptol. $27^{\circ} 15' 0''$, $27^{\circ} 8' 0''$, by de la Rochette.

³ Προσκόθειος δι' μον., τρίας. Strabo, xvi. 769. The Jaffateens are more than three; but the smaller ones are perhaps little more than rocks above water.

⁴ Διημέτρια μήγας, τὸν ἡπτάνην ἔχοντα επολιό. Strab. ibid.

with this additional motive; that being in a lower part of the gulph, it facilitated the communication with the ocean, or the coast of Africa, and lay more convenient for taking advantage of the regular winds within the straits, or the monsoons in the Indian ocean. The plans of Philadelphus, indeed, seem to have been larger than either he or his successors carried into execution; he had evidently sent travellers to penetrate into the interior by land, while his fleet was exploring the coast. Pliny mentions the names of Dálion, Aristócreon, Bion and Básilis⁶, as visitors of Ethiopia; and Simónides as residing five years at Meroë; while Timosthenes⁷ went down the coast as far, perhaps, as Madagascar, but certainly lower than the fleets of the Ptolemies traded⁸, or the Roman fleets in the age of the Periplûs. The account of Agatharchides, who lived in the reign of Philométor, goes no lower on the western side of the gulph than Ptolemáis Thérôn; and in his time the commerce seems so generally to have settled at Myos Hormus, that no mention of Berenícè occurs in the whole work⁹. Under the successors of Philométor, this

⁶ Plin. lib. vi. c. 35.

⁷ There is some reason to hesitate in giving credit to Timosthenes, as he says the Red Sea is two days sail across and *four days* sail in length. Plin. lib. vi. Four days (if it be not an error of Pliny's) cannot by any means suffice for a course of nine hundred miles. See Fragm. Artem. Hudson, vol. i. p. 88.

⁸ This is similar to what has happened relative to our own discoveries. Sir F. Drake explored the western coast of America, to the north of California, where no navigator followed him till almost 200 years after, when the English, Russians, and Spaniards have interferred with each other in Nootka Sound. In the same manner also the Carthaginian

commerce on the coast of Africa settled at Cernè, though Hannô had gone much farther to the south.

⁹ Neither does Diodorus notice it, who wrote, perhaps, early in the reign of Augustus, and followed Agatharchides. But Strabo is diffuse; and he adds one particular which may account for the silence of Agatharchides, which is, as we have just noticed, that Berenícè, though a station, was no port. The harbour was at Myos Hormus; and the ships lay there till they came to Berenícè for their lading. The Periplûs also seems almost to join the two together, at the commencement of the Arabian voyage.

• trade languished rather than increased, nor was it reinvigorated till the conquest of Egypt by Augustus.

. The connexion between Myos Hormus and Berenicè, from which ports the navigation commenced, requires more consideration than has been bestowed upon it by those who have preceded me in the inquiry.

Berenicè, according to the *Periplùs*, was distant eighteen hundred stadia from Myos Hormus, which, if the author reckons ten stadia to the Roman mile, (as d'Anville supposes) amounts to one hundred and eighty; or if he reckons eight, we obtain two hundred and twenty-five miles, for the interval between the two ports; both estimates are too short, as the distance from the northern Jaffateen to Ras-el-anf¹⁰ is little less than two hundred and sixty miles Roman. Without insisting upon this, Ras-el-anf is the leading point to fix Berenicè, for this is the Leptè Promontory of Ptolemy, on which Berenicè depends. "The land here," says Bruce, "after running in a direction nearly N. W. and S. E. turns round in shape of a large promontory, and changes its direction to N. E. and S. W. and ends in a small bay or inlet." Now this agrees exactly with the position assigned to Berenicè by Strabo, in the very inmost recess of his Sinus Impurus. It may seem extraordinary¹¹, that the name of Foul Bay¹² should appear in our modern charts in this very spot,

¹⁰ Cape Nose.

" From the appearance of Foul Bay, on de la Rochette's chart, I conclude it to be a modern nautical name. Its correspondence with the ancient Sinus impurus is confirmed by d'Anville as well as de la Rochette. See his Golfe immonde. And if this is established, Strabo's expression, οὗθε τὸ κόλπον, in the innermost recess of the bay, ought, in my opinion, to determine the question.

¹¹ Αὐλαῖα is rendered improperly by *impurus* and *immundus*.

It is literally both here and in the *Periplùs*, p. 12. what we should call in English Foul Bay, from the foulness of the coast, shoals, and breakers. Αὐλαῖα Κύπρον... ἡτοι αὐλαῖα τὸν ιδίου πόλιον χρηστοῖς καὶ πάχεις μετεργίζεται, καὶ πάντας κατατυγχάνει τὸ πτέρων τοῦτον ἀτασθαλίαν εἶναι διέπειται. Strabo, lib. xvi. p. 769.

and marked with the shoals and breakers which entitled it to the same appellation in the time of Strabo. But such is the fact, and de la Rochette's chart¹³ gives us a small anchorage or inlet in the very bottom of the bay, which he styles Minè, or Belled-el-Habesh¹⁴, the port of Abyssinia. These circumstances are farther corroborated by the chart which Mercator extracts from Ptolemy, and by Ptolemy's own distances in longitude and latitude from Leptè. Col. Capper¹⁵ has supposed that the site of Berenicè cannot be determined, and d'Anville has placed it nearer to Leptè; but in this, it is probable he was determined by the latitude of Syénè, for both are supposed to be tropical, and Col. Capper has possibly not applied his superior information to this object. I fix it at the port of Habesh, not from latitude, but local relation. For Syénè is in latitude $24^{\circ} 0' 45''$, and this port is in $23^{\circ} 28' 0''$, according to de la Rochette. If then we were to be determined by the tropick, the port of Habesh is more tropical than Syénè. But the ancients were by no means accurate in these coincidences. Meroë and Ptolemais are still less reconcileable than Berenicè and Syénè; and yet the respective correspondence of the four places was admitted. I am much more led by existing circumstances than these estimates: a coast falling in, as described by the original voyagers, and a port found at the termination where it ought to be, tend more to ascertain a position when ancient accounts are to be considered, than astronomical calculation. But I do not assert the identity, I know the difficulties, I know that the Topaz island of Strabo is

¹³ D'Anville has the same, and Bruce the castle. The principal Mameluk at Cairo, is styled Sheik-el-Belled, the sheik of the castle.

¹⁴ Minè and Belled both signify a fort or

¹⁵ Page 57.

dubious

• dubious¹⁶, but as a choice is necessary, I select the port of Habesh for Berenice, and I trust the solution of the problem to further inquiry.

Both from Myos Hormus and Berenice, the fleets sailed for Africa and Arabia in the month of September; and for India in July¹⁷; dates which agree admirably with the regular winds, as stated by Bruce. For, in the first instance, if they cleared the gulph before November, they in that month fell in with the wind, which carried them down the coast of Africa, and which served them to return in May. And in their voyage to India, sailing in July, if they cleared the gulph before the 1st of September¹⁸, they had the monsoon for nearly three months to perform the voyage to the coast of Malabar, which was generally completed in forty days.

III. But before we enter upon our navigation we must examine the previous preparations in Egypt, commencing our inquiries from Alexandria, the head and centre of all the commerce between India and Europe for seventeen centuries¹⁹.

¹⁶ There was a Sapphire, an Emerald, and a Topaz island in the Red Sea; all three give rise to much fable and much uncertainty. Strabo's Topaz island is the same as this Serpentine. Whether both names ought to relate to the island at Ras-el-anf, I cannot say. That island is the Macour of Bruce; the Emil or Emerald island of de la Rochette, the Insula Veneris of Ptolemy. Strabo's Topaz island is lower than Berenice. It may be the modern Zemorgete, the Agathonis Ins. of Ptolemy, but the confusion is endless.

¹⁷ See Periplus, p.p. 5, 13, 29, 32. The

author mentions the Egyptian as well as the Roman months Tybi, January; Thoth, September; Epiphi, July. A proof that he was a resident in Egypt if not a native, and that he wrote for the traders in that country.

¹⁸ This is fixed to a certainty by Pliny, who says, they sailed at the rising of the Dog Star, July 26, and reached Okelis in thirty days; from whence to Muziris the voyage is usually performed in forty days Lib. vi.

¹⁹ Eighteen, reckoning from the death of Alexander.

The principal merchants, who carried on this commerce both under the Ptolemies and the Romans, resided at Alexandria; and though the Ptolemies, for their own interest, might allow others to employ their capital in this trade, and the Romans certainly would not suffer themselves to be wholly excluded, still the standing law of the country was, that every merchant must employ an Alexandrian factor for the transaction of his business; and this privilege alone, with the profits of the transport,²⁰ is sufficient to account for the immense wealth of the metropolis²¹, exclusive of all other advantages.

In the latter end of July the annual or Etesian wind commences, the influence of which extends from the Euxine Sea to Syenè in Upper Egypt. Blowing from the north it is directly opposite to the course of the Nile, and prevailing for forty days while the river is at the height of its swell, it affords an opportunity of advancing against the stream, with more convenience than other rivers are navigated in their descent. With the assistance of this wind, the passage from Alexandria up to Coptus was performed in twelve days, which, as the distance is above four hundred miles²², sufficiently proves the efficacy of the wind that carried them.

Two miles from Alexandria, says Pliny, is Juliopolis, where the navigation to Coptus commences; an expression not very intelligible without the assistance of Strabo. For why should he mark the departure from Juliopolis rather than Alexandria? Strabo informs us, that the vessels navigated a canal, which extended from Alex-

²⁰ The revenue of Alexandria, in the worst of times, was 12,500 talents, equal to 2,421,875l. sterling. Strab. xvii. 798.

²¹ Three hundred and eighty, without allowing for the sinuosity of the river.

*andria to the Canopic branch of the Nile, at the junction of which was Schédia; here all the duties were collected on goods which passed upwards into Egypt, or down the Nile to Alexandria. This canal²² in its course almost touches Nicopolis²³, (a city so called from the victory obtained here by Augustus over the forces of Antony,) and which, by its distance of thirty stadia²⁴, must be the Juliopolis of Pliny. It is probable, therefore, that before the time of Pliny, the Custom-house had been removed from Schédia to this place.

It is then by the Canopic branch, now almost neglected, that vessels passed up to Memphis, and thence to Coptus. Coptus was a city in the age of Strabo who visited it, common to the Arabs²⁵, as well as the Egyptians; it was not actually on the Nile, but connected with it by a canal, and was the centre of communication between Egypt and the Red Sea, by a N. E. route to Myos Hormus, and a S. E. to Berenice. Upon reference to the map the reason of this is evident. The river bends here towards the east, and in proportion to its inclination shortens the distance of land carriage. Coptus is seated almost in the centre between Ghinnè and Kous. Ghinnè is the ancient Kænè²⁶, and is the modern point of

²² This canal has still water in it during the inundation, and boats pass.

²³ See Dion. Cassius, lib. ii. p. 280. Lat. ed.

²⁴ Strabo, lib. xvii. p. 795.

²⁵ The present government of Egypt is divided between the Turks, the Mammelucks and the Arabs. The Turks, though sovereigns, have the least share. The Mammelucks have twenty-four beys, nominally dividing the whole country from the sea to Syène, all-

powerful at Cairo, but never complete as to their number in the country, and sharing their influence with the Arab sheiks. The Roman government was firm and imperious, but even under that, as appears from this passage of Strabo, the Arabs found means to infest themselves into a share of the power at Coptus, and, as we may from this circumstance conclude, possibly in other places.

²⁶ Καινὴ Νεαπόλις, Neapolis, or the new city, by its name evidently of Greek extraction.

communication with Coseir²⁷; the port on the Red Sea, where the little commerce which remains is carried on between Upper Egypt and Arabia. Kous arose in the middle ages from the same cause; and became the principal mart of the Said²⁸. These three places all lie on the same curvature of the river, and all grew into importance at different periods, from the same cause; the necessity of conducting land carriage by the shortest road.

It has been already noticed, that notwithstanding Berenice was built by Philadelphus, the route of the caravan thither, and the port itself were little frequented, as long as the Ptolemies reigned in Egypt. The first mention I can find of it is in Strabo, and he visited the country after it was under the power of the Romans. The Romans saw what Philadelphus had designed, and they had the penetration, from their first entrance into the country, to reap the advantages which his successors had neglected. In the course of six or seven years an hundred and twenty ships sailed from this port for India²⁹; these, indeed, were but a small part of the whole.

²⁷ Irwin reckons one hundred and fifteen miles from Co-cin to the Nile, vol. i. p. 234. Brown rode it on dromedaries in three days.

²⁸ D'Anville, Geog. Ane. vol. iii. p. 33.

²⁹ It has everywhere been supposed, that single ships did sail both to India and Africa by coasting, previous to the discovery of Hippalus; it has everywhere been allowed that the Arabians traded to India, and the Indians to Arabia, and probably with a knowledge of the monsoon. But this passage of Strabo's stands alone as an evidence, that a fleet sailed from Egypt directly to India. If it did sail, it must still have coasted the whole way. But might not Strabo, from knowing they brought home Indian commodities, have supposed that they sailed to India, when in reality they went no farther than Hadramant in Arabia, or Mofyllon on the coast of Africa; where they found the produce of India?—

I do not approve of contradicting the assertion of any intelligent author, such as Strabo; but I recommend it to the consideration of better judges, whether a circumstance of this magnitude ought to be established on a single passage. It is also to be noticed, that Arabia was sometimes called India by the ancients, not from error, but because it was on the other side of the Red Sea, and because the commodities of India were found there. So Indorum promontorium in Juba, the same as Lepidè Acèrè is Ras al-anf, whence the trade to India commenced. Indos Juba vocat Elthiopas, Troglodytas. Tiardouin, not ad Plin. vi. 34. but Hardouin is mistaken, and probably Juba. It is the Indian Cape and Port, so called from the Indian trade at Berenice. In what sense the ships sailed from Egypt to India, will be considered at large in the fourth book.

The bulk of the trade still passed by Coptus³⁰ to Myos Hormus, and continued in the same course till the period in which the Periplūs was written; this is the principal reason which induces me to believe that the Periplūs is prior to Pliny, and assign it to the reign of Claudius, or Nero; for Pliny is the first that specifies the stages of the caravan, or gives us reason to believe that Berenīcē was the grand centre of commerce. That it was not so when the author of the Periplūs wrote is evident, because he commences his route from Myos Hormus³¹, a proof that he considered it as the first port of departure.

Pliny on the contrary never mentions Myos Hormus in the passage where he details the voyage to India³², nor does he notice it at all, except once incidentally, where he is describing the western coast of the Red Sea³³. A proof that it was as subordinate in his time, as it had been pre-eminent before.

Every detail that is now extant, of the road from Coptus to Berenīcē, is Roman; as that of Pliny, the Itinerary of Antoninus, in the Peutingerian tables, and the anonymous geographer of Ravenna³⁴. There is no Greek account of it extant but Strabo's, and he visited the country after the Romans were in possession. His information, therefore, is Roman³⁵; it specifies particulars of which other Greeks were ignorant; but it falls short of what the Romans relate themselves. He mentions only that

³⁰ Άλλα κῦν ἡ Κοπτικὴ καὶ ὁ Μυόρμους Εὐδοστής καὶ χεῖναι τοὺς τόπους τούτους. Strab. lib. xvii. p. 815. See a very remarkable passage in Ptolemy, lib. i. c. 7.

³¹ Whether Myos Hormus and Berenīcē may have been comprehended in the mention of one as conjectured above, must remain a

doubt, as there are no circumstances to ascertain it.

³² Lib. vi. c. 26.

³³ Lib. vi. c. 33.

³⁴ Lib. ii. p. 755. in ed. Var. Pomp. Mela.

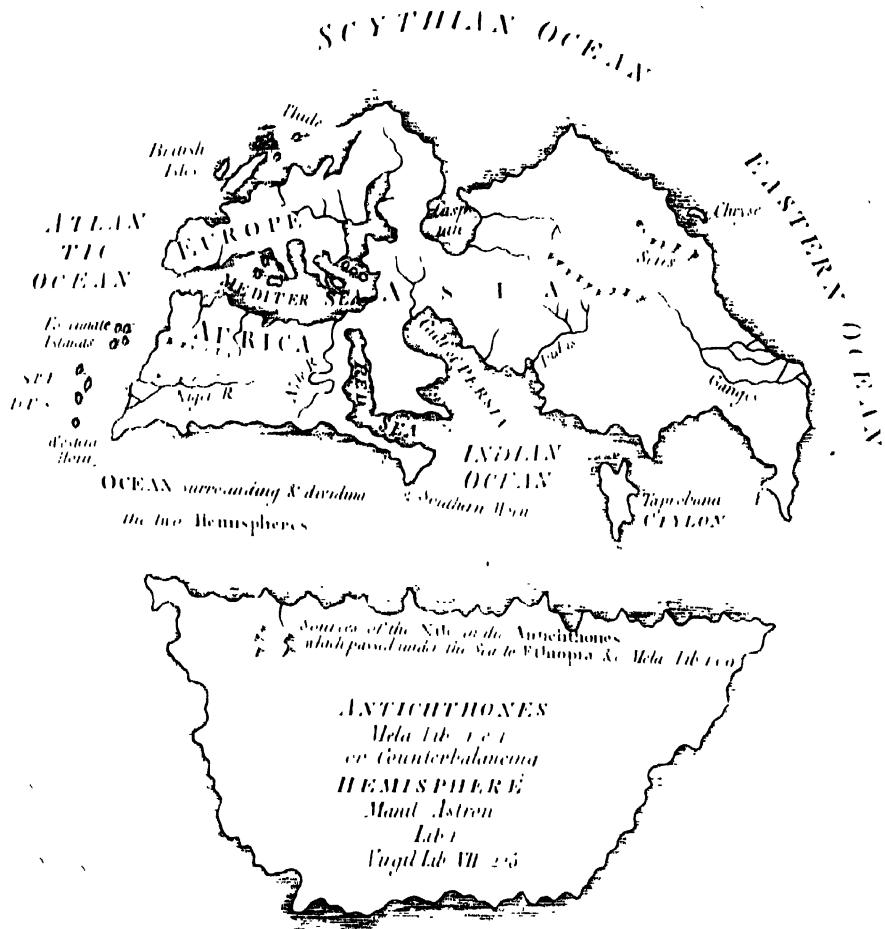
³⁵ Lib. xvii. p. 815.

Philadelphus opened this route with an army¹⁵, and that as it was without water, he established posts¹⁶, both for the convenience of those who travelled this way on business, and those who conveyed their goods on camels.

If it should be thought that this is said from any desire of amplifying the industry or penetration of the Romans, let it be observed, that Augustus reduced Egypt into a province, in the year 30 before the Christian era, and that in less than six years Petronius had penetrated into Ethiopia, and reduced Candâcè queen of Meroë or Atbara; that Elius Gallus had been sent into Arabia with the same view of extending the knowledge and power of the Romans; and that the fleet sailed from Berenicè instead of Myos Hormus. These transactions Strabo relates as an eye-witness, for he accompanied Elius Gallus to Syénè. And in the interval between the conquest of Egypt and the reign of Claudio, a period of 71 years, there is every reason to suppose, that a province so productive, and a commerce so advantageous, had never been neglected. But it was not till the discovery of the monsoon, which we place in his reign, that all the advantages of Berenicè would become obvious. This would by degrees draw the concourse from Myos Hormus; it had not operated essentially in the age of Strabo; the change was beginning to be felt when the Periplûs was written; it was fully effected in the time of Pliny.

¹⁵ The road between Coptus and Myos deep wells had been sunk, and cisterns formed Hormus he describes more particularly. A for holding water, as it sometimes, though proof that it was latter known. It was severely rains in that tract. Lib. xvii. 815. er eight days journey, formerly performed on ¹⁶ Στρατηγὸν or στρατιῶν Diversoria, Caravans- camels in the night by observation of the stars, rais. and carrying water with them. Latterly very

GENERAL MAP of the WORLD according to POMPONIUS MELI by P. BURRIUS
 constructed for the Var^e Edition
 by A. GRONOVUS 1722



The annexed table, compared with the map, will now shew all that is necessary to be known, better than narrative; and as it is obvious that the names are Greek, we must suppose that they are such as were first given, upon opening the communication by Ptolemy, however unnoticed by the Greek writers; or that the Greeks of Egypt were employed by the Romans in forming the establishment. The mention of the *Troglodytes* agrees with their history, as it has been admirably illustrated by Bruce; they are the Shepherds so much noticed in the early history of Egypt, who every year conduct their flocks and herds from the plains of Ethiopia, across the mountains of the Red Sea, to avoid the fly, that scourge of their profession. They have done this in all ages; they do it to the present hour; their habitation is consequently temporary, and if they found caves⁷⁷ or hollows in the rocks, these they would occupy, as their name implies. Tribes of this kind also are naturally plunderers, and the guard necessary to defend the caravan in passing their country, is correspondent to the circumstances of their profession and situation. If we add to this the passage of the mountains, evidently marked in Pliny, we have all, the particulars that Bruce enumerates; and an evidence of that range, which he has depicted as extending parallel to the coast, from the sea of Suez to the main of Africa. Below this range there seems to be a level towards the sea like the Tehama of Arabia, and the Ghermesir on the Gulph of Persia; and I conjecture that

⁷⁷ Bruce found *Troglodytes* actually living Upper Egypt, and the herds passing at Sennar in caves in Gojam, he saw these caves in near.

Tisebárikè³⁸, the name which the Periplûs gives to the tract in the neighbourhood of Berenícè, expresses this very level, and corresponds with the Tehama of Arabia.

I have already noticed that Berenícè lies nearly in latitude 24°, and have now only to add, that by the concurrent testimony of the Periplûs and Strabo, the anchorage was a bay and a road, but not an harbour.

³⁸ Teez-u-bareek is said by Capt. Francklin, author of a Tour in Persia, to be still a familiar phrase in the Persick for *sharp* and *thin*. It will also bear the sense of *low* and *flat*, and in that sense he supposes it applied to the low country on this coast. Mr. Jones interprets Bareek in the same manner on the coast of Persia, as Gezirat al Bareek, the Low Island. Stuckius reads, Γῆ Αραβίων, for Τισεβάρικην. See Stuckius and Hudson, Geog. Min. Peripl. p. 1.

FROM BERENÍCÈ TO PTOLEMÁIS THÉRÔN OR EPITHÉRAS.

IV. SOUTH of Berenícè, in the tract of low country between the mountains and the sea, called Tisebarikè, is the habitation of the Troglodytes, esteemed as Ichthyophagi or Fish Eaters, who live in the clefts and caverns of the mountains, dispersed and independent. They are inclosed by more inland tribes, who are distinguished as Akridóphagi³⁹ and Moskhóphagi, titles which imply that their food is locusts and veal. A strange peculiarity! but as locusts are no uncommon food either on the coast of Africa or Arabia, so, perhaps, the latter distinction intimates a tribe that fed on the brinde⁴⁰, or flesh cut out of the living animal, so graphically described by Bruce⁴¹. These tribes are under the regular government of a king.

Below the Moskhophagi lies the little town of Ptolemáis Thérôn, so called from Ptolemy Philadelphus, who sent his hunters here to procure elephants for his army. Here the true shell of the land tortoise is to be procured. It is white⁴², with a small shell, and in no great quantity. The elephants also are small, like those obtained at Adûli.

³⁹ By a comparative view of these in Agatharchides, the site we should allot to them would be in Nubia or Sennaar, or between those places and the mountains which line the coast.

⁴⁰ Perhaps the title of Κρεωφάγοι, which Strabo confers on this or some neighbouring tribe, is equivalent. See Agatharchides, p. 40. Hudson.

⁴¹ A passage follows which is imperfect. It seems to describe another tribe still more inland, and west of the Moskhophagi. Compare with Agatharchides, p. 36, et seq.

⁴² Δευκήν μιχροτέραν τοῖς ὀστεράκοις, rendered by Hudson, *Candidam minoribus testis præditam*. See also Perip. p. 17, where this interpretation is confirmed.

This place has no port, and is approachable only by boats. It lies about four thousand stadia from [the harbour which is established for] the reception of such articles of commerce as are brought from beyond the straits⁴³, that is from Berenicè. This distance agrees with Ras Ahehaz, or Ageeb, where d'Anville places it, if we reckon the stadia, as he does, ten to a mile. The cape is laid down in latitude $18^{\circ} 20'$, by d'Anville; $18^{\circ} 31'$, by de la Rochette; $18^{\circ} 10'$, by Bruce.

If this be true, the ancient geographers must be greatly mistaken, who place it under the same parallel with Meroë, to which they assign $16^{\circ} 25'$. This parallel is of great importance: it was traced by Eratosthenes to whom we owe the doctrine of parallels. And it is assumed by Ptolemy as a distinguished line both in regard to Syénè, and to the parallel of Pra sum, which was the boundary of his knowledge, and which he lays down as many degrees to the south, as Meroë is to the north of the equator.

If then we could fix the position of Ptolemáis by reference to the parallel of Meroë, it would give consistency to the Periplûs, in a passage where the measures are more difficult to reconcile than in any other part of the work, for according to de la Rochette

| | | |
|------------------------------------|------------|-----------------------|
| Mineh-Beled-el-Hbesh, or Berenicè, | is in lat. | $23^{\circ} 16' 30''$ |
| Ras Ahehaz, or Ptolemáis | - | $18^{\circ} 31' 0''$ |
| Masua, or Adûli | - | $15^{\circ} 46' 0''$ |

⁴³ Ταῦτα τὰς τῆς ανακομιδῆς, distans a principio sinus. Hudson. Which cannot be true in any sense, for whether the beginning of the gulph be taken from the straits, as Hudson doubtless means, or from the sea of Suez, this distance cannot be reconciled. We have had frequent occasion to notice the expression, Τάταρα for Τα πέρας, τὰς πέρας;

&c. which intimates generally any commodities brought from beyond the straits, but in the Periplûs constantly the commodities of the Mosyllitick coast, or kingdom of Adel; and the port established for the importation or reception (ανακομιδή) of these commodities can be only Berenicè, the port immediately before mentioned.

which gives the distance from Berenice to Ptolemäis three hundred and fifty-four Roman miles, and from Ptolemäis to Aduli two hundred and twenty-five ; making a deficiency upon the measures of the Periplüs of one hundred and twenty-one out of five hundred and seventy-nine, if we reckon ten stadia to the mile Roman. The distances are, four thousand stadia from Berenice to Ptolemäis, and three thousand from Ptolemäis to Aduli. It is this deficiency which has induced Mr. Gosselin⁴⁴ to carry the Aduli of the Periplüs to Assab, or Saba, contrary to the opinion of all former geographers, and contrary to the local circumstances of Aduli, so strongly marked by our author.

The removal of Aduli from Masua to Saba, and of Ptolemäis from Ras Ahehaz in $18^{\circ} 31' 0''$ to $16^{\circ} 58' 0''$, are therefore mutually connected in Mr. Gosselin's system⁴⁵; and as this brings Ptolemäis within thirty-two minutes of the parallel of Meroë, the whole would be reconcileable if we could make the measures of the Periplüs accord ; but this is impossible⁴⁶ ; and here Mr. Gosselin is led into a great error, the cause of which I do not readily discover ; for he says, that the Periplüs reckons from Aduli to the Straits of Bab-el-Mandeb, eight hundred stadia. This is another mistake ; for the Periplüs marks the termination of these stadia at a very deep bay where the Opsian

⁴⁴ It was at the moment that this sheet was returned from the press, for correction, that I received by favour of Major Ouseley, Mr. Gosselin's work, *Recherches sur la Géographie des Anciens*, published in two volumes, at Paris, in 1798 ; and of which only a very few copies had at that time reached England. However we differ on the whole of the Periplüs, I was happy to find we agreed upon the subject of the circumnavigation of Africa, and I have reconsidered this

article of Ptolemäis in order to advert to the points on which we differ. In regard to the remainder of my work, it was finally arranged and settled, and I can only notice our disagreement by a note inserted on some particular occasions. I have found no reason upon the whole to abandon the ground which I had taken.

⁴⁵ See Gosselin, *Recherches*, tom. ii. p. 196. et seq.

stone is found⁴⁶, and from that bay mentions expressly the commencement of the inclination which the coast takes to the east⁴⁷, and which it continues till it joins the straits : all this is true, if Adûl is fixed at Masua, and false, if it is carried to Saba, or Assab. The Periplûs, therefore, is consistent in its description, and inconsistent in its measures ; and to which of the two the preference ought to be given, will hardly be disputed by those who know the little certainty of all numbers in a Greek manuscript, and how much all printed texts are corrected by circumstances before they can be made consistent.

The real position; therefore, of Ptolemáis Thérôn cannot be determined from these data ; but if we relinquish the measures of the Periplûs, and search for it by the parallel of Meroë, we meet with many curious particulars to compensate for the digression, and furnish means for the reader to determine for himself.

Meroë, as the first parallel of Eratosthenes, became an object of the greatest importance to all the geographers and astronomers who succeeded ; and if there is any one point more than another upon which we can suppose them to have searched for accuracy or acquired it, it is this. Ptolemy places it in $16^{\circ} 24' 0''$; or, as it appears in his tables⁴⁸, $16^{\circ} 25' 0''$; but in his eighth book, he says,

the

⁴⁶ Peripl. p. iii.

⁴⁷ Ibid. p. v.

⁴⁸ The text stands $\tau\varsigma.\gamma.\tau\alpha.$ which the Latin reads $15^{\circ} 26' 0''$; but it is $16^{\circ} \frac{1}{4} = 20^{\circ} \frac{1}{4} = 5$, that is, $16^{\circ} 25' 0''$. The ancient geographers thought, if they approached precision within one twelfth of a degree, or five minutes, it was sufficient; they have therefore no more minute

division into seconds; but if Meroë were in latitude $16^{\circ} 24' 0''$, the line would be drawn through $16^{\circ} 25' 0''$. This twelfth is expressed in the different copies of Ptolemy ω or ω , or ζ ; and ζ is supposed to be *ten* and *two*, that is, *twelve*, or one twelfth. But the commentators and editors are not agreed upon the form of writing or manner of explication, though

the longest day at Meroë is thirteen hours, (which makes the latitude $16^{\circ} 24'$), and the sun is vertical twice a year, when he is distant (both upon his approach to the tropic and his return,) $45^{\circ} 20' 0''$, from the solstitial point. This statement of forty-five degrees must be older than Ptolemy; for Pliny mentions that the sun is vertical at Meroë forty-five *days* before, and forty-five *days* after the solstice, in which he seems to follow Philo⁴⁹, and then adds, that on these two days the sun is in the eighteenth degree of Taurus, and the fourteenth of Leo.

Now in this passage there are two errors; for first, forty-five *degrees* are not the same as forty-five *days*, as there are three hundred and sixty-five days in a year, instead of three hundred and sixty, which there ought to be, to make the two agree; and secondly, the place of the sun is mistated, both upon his approach and his return, for by a calculation of Mr. Wales's, with which he favoured me a few days before his death, it appears,

“ That the sun, *at this time*, is in the eighteenth degree of “ Taurus, forty-four days before the solstice, which would give “ $17^{\circ} 13' N.$ for the latitude of Meroë. And in the fourteenth

though they all interpret it one twelfth, or five minutes. See lib. i. c. 10. *dua Mironc.*
i. v. v. 16. the same which is written in the tables, *v. v. 1a.* rendered by Montanus, distat
partibus aequalibus sedecim et tertia cum duodecima.

⁴⁹ See Bruce, vol. iv. p. 540, and Strabo, lib. ii. p. 77, where mention is made of Philo, who wrote an account of the navigation into Ethiopia, [by the Nile,] and who mentions the vertical sun at Meroë forty-five days before the summer solstice. He is noticed as

remarking the shadows of the Gnomon, and agreeing with Eratosthenes. Some authority of this sort Pliny must have followed, as Ptolemy was posterior.

Pliny is reproached unjustly by Salmasius. Plin. Ex. 424, as saying that the sun is vertical for ninety days at Meroë. It will appear sufficiently from this statement that he makes no such assertion; and the mistake of Salmasius is reprehended by Vossius and Hardouin. See Vossius ad Melam. ed. Varior. p. 582. Hard. Plin. lib. ii. c. 75. not. 67.

“ of Leo; forty-six days after the solstice, which gives $16^{\circ} 36' N.$

“ Or again”, if we take the other statement of Pliny, forty-five days before the solstice, the sun is in the seventeenth degree of Taurus, which makes the latitude $16^{\circ} 57' N.$ and forty-five days after the solstice, the sun is in the thirteenth of Leo, which gives $16^{\circ} 53' N.$ ”

Since the communication of this statement, calculated only for the place of the sun at the present day, the bishop of Rochester has added to the many former kindnesses I have experienced from his friendship, and derived from his comprehensive view of the science, the following particulars:

“ Nothing is assumed by Ptolemy but what is strictly true, that at equal distances from the solstitial point, on one side and the other, the sun has equal declination. He gives us in this passage two distinct principles for determining the latitude of Meroë; the length of the longest day, and the distance of the sun from the solstitial point, when he culminates in the zenith of the place. The two principles agree sufficiently in the result, and the latitude which they give agrees with the latitude of Meroë, as deduced from other principles, and stated in other parts of Ptolemy's works.

“ The distance of the sun from the solstitial point, when he culminated in the zenith of Meroë, he tells us was $45^{\circ} 20'$. The

^{so} To Mr. Wales I was known only by the courtesy of literature; but such was his love of science, that I never consulted him without receiving every assistance that it was in his power to give. I insert this as his last favour, and not without a tribute of gratitude to the memory of a man, who was as excellent in private life, as an husband and a father, as he was eminent in the science he professed, the friend and companion of the illustrious Cook.

“ obliquity



ΘΕΩΝ

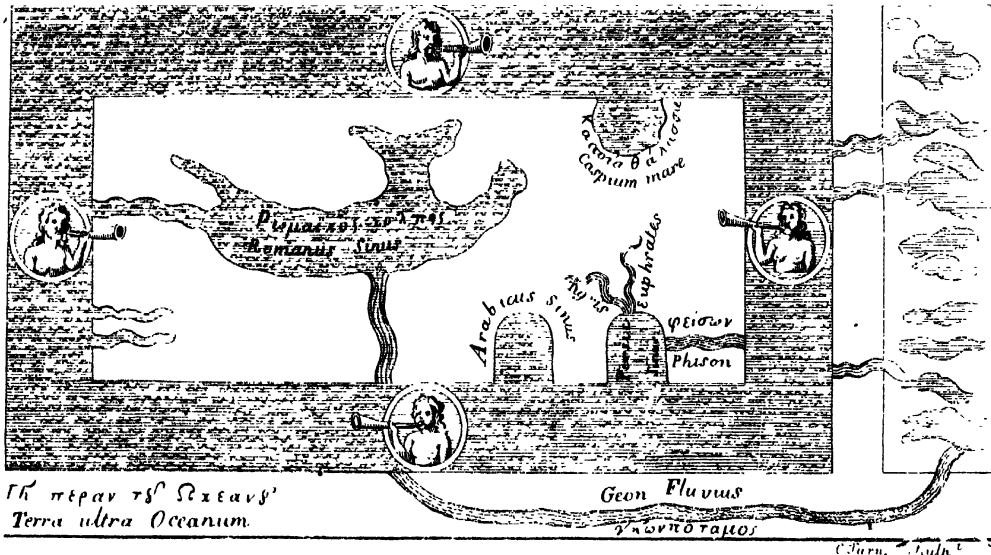
ΣΩΤΗΡΩΝ



Vaillant Her.

Ptol. p. 52.

Γῆ περαν τοῦ Ωκεανοῦ εὐθα πρὸ τοῦ χαρακτηρίστηκου εἰς αὐδρων νοι
Terra ultra Oceanum, ubi ante diluvium habitabant homines.



Γῆ περαν τοῦ Ωκεανοῦ
Terra ultra Oceanum

C. Turn. sculps.

obliquity of the ecliptic at that season of the year, which was
 our Lord one hundred, was $23^{\circ} 40' 50''$; the sun's declination, there-
 fore, at the distance of $25^{\circ} 20'$ from the summer solstitial point,
 would be $16^{\circ} 24' 3''$ N. and so much was the latitude of Meroë;
 for when the sun is vertical at any place, the declination of the
 sun and the latitude of the place must be exactly equal.

But he tells us also, that the length of the longest day at Meroë
 was thirteen hours; and I find by calculation, that at a latitude
 of $16^{\circ} 24' 3''$, the longest day must be exactly thirteen hours, fifty
 nine minutes and twenty seconds, wanting half a minute, or about
 thirteen hours.

Again, assuming thirteen hours for the length of the longest
 day, I find the latitude exactly corresponding to be $16^{\circ} 34' 27''$.
 But this confirms the conclusion from the former principles,
 notwithstanding the excess of $10' 24''$; because the phenomenon
 of a longest day of thirteen hours would be observed in a
 place in a somewhat lower latitude, the day being lengthened
 in all latitudes, several minutes, by the double effect of the hori-
 zontal refraction.

Having thus established the latitude of Meroë upon Ptolemy's
 principles, it will not be foreign to our purpose if we examine the
 measures in Strabo, according to the estimate of Eratosthenes; for
 notwithstanding all measures of this sort are precarious, still, when
 they come within a few minutes of coincidence, the approximation
 is more satisfactory than the disagreement offensive. The ground
 stands thus:

The parallel through the Cinnamon country, which was the name given by
 the early geographers, is north of the equator

The same parallel is south of Meroë

Therefore Meroë is north of the equator

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Now Eratosthenes⁵¹ reckoned seven hundred stadia to a degree ; and if we divide eleven thousand eight hundred by seven hundred, it gives for the latitude of Meroë $16^{\circ} 51' 34''$, differing from Ptolemy only $27' 34''$, which is an approximation the more remarkable as Ptolemy reckons five hundred stadia to a degree, and Eratosthenes seven hundred ; and this circumstance may give rise to a conjecture, that Strabo had a map of Eratosthenes before him, and measured off these degrees from the parallels of that geographer, by the compasses, as we should do at the present hour⁵².

But we have another coincidence between the measures of Pliny and the observations, which is equally remarkable ; for Pliny has preserved the report of two Roman centurions sent into Ethiopia by Nero, who reckoned eight⁵³ hundred and seventy-three miles from Syenè to the confluence of the Nile and Astaboras, and seventy from the confluence to Meroë⁵⁴. The former number we must exhaust by supposing that the centurions followed the winding of the river, which Pliny specifies ; and upon the latter, where the distance is so small, there can be no material error ; seventy Roman

⁵¹ Εἰ δὲ τις ἂν τριηκόσια ἑπτάκοντα τριηκάτα τίμω
τὸ μέγεθος τῆς γῆς κακῶν, ἵνας ἵκανοιν τριηκάτα,
ἴκανον τὸν τριηκάτον. Strab. lib. ii. p. 132.

⁵² It is remarkable that this measurement by stadia, carried on to Syenè, and reckoning that place five thousand stadia north of Meroë places it in latitude $24^{\circ} 0' 0''$, which Bruce fixes by repeated observations in $24^{\circ} 0' 45''$.

⁵³ These numbers vary in the copies to eight hundred and ninety-two, and nine hundred and twenty-eight, but with this difference we are not concerned at present. Bruce reclaims against them as carrying Meroë to Gojam ; but if measured by the river, which is remarkably tortuous in this part of its course, the numbers are not too high.

⁵⁴ Pliny mentions the places which occur on each side the river in their progress to Meroë ; and he adds, that these are very different from the names given by the Greeks, whom Ptolemy Philadelphus sent into the same country, and much fewer ; this desolation, he observes, was not caused by the Romans, but by the previous wars between the Egyptians and Ethiopians. But as he mentions likewise, lib. vi. c. 34, 35, that the inhabitants on the Nile, from Syenè to Meroë, were not Ethiopians but Arabs, may we not conclude, that the cause of desolation was imputable to them in that age as it is at present ? See Bruce, iv. 330, et seq.

miles then approach within five of a degree, which, as we have no ancient map to guide us, we may try by the state of Bruce. Bruce had good instruments, and had been long practised in observation; but he was struggling for his life, and his observations must have been hasty. Still as we have no better, and no traveller is soon likely to correct his errors if he is mistaken, we are entitled to use his statement till a better can be obtained. He fixes

| | | |
|---------|-------------|--------------------------------|
| Herbagi | 14° 30' 0" | |
| Hafnia | 15° 45' 54" | Long. from Greenw. 32° 49' 15" |
| Gevi | 16° 15' 0" | |
| Chendi | 16° 38' 55" | Long. 33° 24' 45" |

Fifteen miles N. of the junction at Goor,
that is, the confluence of the Nile and }

{ 17° 57' 22" ss.

Astaboras

In consequence of these observations Bruce places Meroë at Gerri, or very near it, as corresponding best with Ptolemy. And for the same reason he might have preferred Chendi, which differs but five minutes more. A queen reigning there, and the title of Hendaque, suggested to him the name of Candacé, and the queen of Meroë. But he had reason afterwards to conjecture that he found the remains of Meroë at a village called Gibbainy, for here he discovered ruins¹¹ which were evidently Egyptian or Ethiopick, and such as he had seen no where from the time he left Axum. He likewise found an island in the Nile called Kurgos by the natives; and such an island, which served for a port to Meroë, Pliny mentions by the name of Tadu¹². These circumstances are so connected, that if it were

¹¹ By repeated observations of the sun and stars, made for several succeeding days and nights. Bruce, vol. iv. p. 538.

¹² Vol. iv. p. 538. Broken pedestals designed for the statue of the dog, pieces of obelisks, hieroglyphicks. The Araba mentioned statues of men and animals, all of black stone.

Ipsius oppidum Meroea ab introitu in fuso, [i.e. a loco ubi confluent Nilus et Astaboras,] abesse LXX millia passuum. Juxtaque aliam

were not carrying the latitude too far north, we might prefer his conjecture to his position of Meroë. There is yet another fact still more appropriate; for if his observations are accurate, and he has placed the confluence of the two rivers exact, the distance from the confluence to Gibbainy measures upon his map as precisely fifty minutes as possible; an approach so near to the seventy Roman miles of Pliny¹¹, that no greater accuracy can be required. It is true that this correspondence will depend on the correctness of Bruce's observations; but if they are faulty, who shall be the traveller to correct them? It is true also, that Bruce's latitude of Gibbainy is $17^{\circ} 4' 0''$, which is forty minutes to the north of Ptolemy's position, a difference, perhaps, not too great to counteract the evidence derived from the island in the Nile, if there be none in a higher part of the river to correspond. And now, if it should ever be the lot of a future traveller to tread this arid soil again, at this point his search for Meroë should commence; and if no ruins were found farther to the

aliam insulam Tadu dextro subeuntibus alveo
[i. e. Nilo] quæ portum faceret. I. Aedificia
oppidi pauca. II. Regnare feminam Candacem
quod nomen multis jam annis ad reginas
transfuit. Delubrum Hammonis et ibi sacrum.
III. Et toto tractu facella. Plin. lib. vi.

Besides the evidence this passage gives for an island at Meroë, it contains some features common to Ethiopia, Nubia, and Abyssinia. I. Aedificia oppidi pauca, is a circumstance as applicable to Gondar and Sennaar now, as to Meroë formerly. II. Candacè is the name of the queen subdued by Petronius. And a Candacè's eunuch was baptized by Philip. Bruce found the name of Hendaquè still existing. III. Toto tractu facella. In Abyssinia the churches stood so thick, that the service could be

heard from one to the other, as is noticed by the Jesuits and confirmed by Bruce. In these respects, therefore, the manners of all these nations appear similar. Pliny notices, in another passage, that they had forty-five kings: a strong characterick of Abyssinia, perhaps, rather than Meroë. The temple of Hammon, Strabo informs us, had been neglected by the Romans, and the superstition despised. In his age, therefore, the Oasis itself of Hammon had fallen to decay. It might still, however, preserve its reputation among the Meroitæ. See Strabo, lib. xvi. p. 815. Meroë is called Naulababe, the mother of ports, by the Egyptians; Neuba, by the natives; and Sabia, by the Abyssinians. Marmol, vol. i. p. 45.

¹¹ Seventy-five to a degree.*

south, he might greet Bruce as the discoverer of Meroë, an honour which, perhaps, would be less disputed than his pretensions to the first discovery of the sources of the Nile. We ought not to be ungrateful to those who explore the desert for our information; Bruce may have offended from the warmth of his temper, he may have been misled by aspiring to knowledge and to science which he had not sufficiently examined; but his work throughout bears the internal evidence of veracity, in all instances where he was not deceived himself, and his observations were the best that a man furnished with such instruments as he had, and struggling for life, could obtain; they therefore deserve respect; and if we should be disposed to adopt his conjecture, rather than his position, from the circumstances before us, the extreme difference between him and the ancient astronomers is $16^{\circ} 24' 0''$, and $17^{\circ} 4' 0''$, a disagreement, perhaps, less allowable in this instance than most others, but still excusable, from the imperfection of all ancient observations depending on the shadow of the Gnomon, and the length of the day, and those of Ptolemy more especially.

If by stating these particulars relative to the latitude of Meroë, we could have obtained the position of Ptolemáis, we should not have to ask the reader's pardon for the digression; but all that we pretend to deduce from it is, that Ptolemáis cannot be fixed at Ras Ahehaz, or Ageeg, where it is placed by d'Anville and Bruce. The Shumeta, or Nubian Forest, which was the resort of the elephants, when Ptolemy built the city, and continues so to the present hour, is supposed to commence in the neighbourhood of that Cape, in latitude $18^{\circ} 31' 0''$, which disagrees more than two degrees with Ptolemy, and nearly one and an half with the conjecture of Bruce. If we descend the

the coast a degree and a half, we arrive at a bay in the middle of the Nubian forest, the lower point of which is nearly in latitude $17^{\circ} 6' 0''$; a correspondence with Bruce's conjectural parallel of Meroë, so near as to be satisfactory. On a projecting point of this fort Ptolemáis was built by Eunitedes⁹⁹, and secured from the natives by a foss carried round the angle from sea to sea; and if this situation should appear reasonable, from the deductions we have been so desirous to state, a better spot for procuring elephants cannot be chosen.

There is not a wish to conceal the uncertainty of this conclusion: the coast is little visited by any European vessels, and the charts of our best Hydrographers are therefore less to be depended on: Strabo's account agrees better with the measures of the Periplûs, and the assumption of d'Anville at Ras Ahehaz. If the distance in the Periplûs from thence to Adûli had been equally consistent, it would have been conclusive; but the whole is now determined by the parallel of Meroë, which the ancients carry through Ptolemáis, and we cannot well attribute to them an error of two degrees, on a point better established than almost any other whatsoever.

Mr. Gosselin carries it still lower, but without a cape, or any circumstance to mark the spot. And it is to be remarked, that he is so attached to his own estimates, for correcting the latitudes of Ptolemy and the other ancient geographers, that he pays little respect to local circumstances and the characteristick features of the coast. As I cannot dispute this matter on every point where we differ, I shall observe here, that his want of attention to the text appears no where more conspicuous than at Adûli and Arômata, two places

⁹⁹ Strabo, lib. xvi. 770,

which

which the *Periplūs* marks with distinctions that cannot be mistaken, and which Mr. Gosselin transforms or displaces with great violence. The consequence is, that he is obliged to have two *Adulis*, for which there can be no warrant either in history or geography.

With whatever errors my arrangement of the coast may be chargeable, I trust it will only affect individual positions: the general outline I am persuaded is true. I submit it, indeed, with less confidence to the public since I have perused the Researches of Mr. Gosselin. But I shall not relinquish the ground I have taken in a single instance. I trust to the investigation which I have patiently pursued under every difficulty, and I leave the issue to the judgment of those who are competent to decide.

It is necessary now to observe, that the hunting of elephants established at *Ptolemais* is confirmed by *Agatharchides*, *Diodorus*, *Strabo*, and other authors. The manner of hamstringing these animals was an art as perfectly understood by the ancient barbarians⁶⁰, as by *Bruce's Agageers*; and the relish⁶¹ for the flesh of the elephant is an indelible characteristick of the nation. *Ptolemy* would have redeemed the life of the animal at any price, as he wanted elephants for his army; but he met with a refusal from the native hunters, who declared they would not forego the luxury of their repast for all the wealth of Egypt⁶².

⁶⁰ See *Strabo*, lib. xvi. p. 772. *Diodor.* lib. iii. p. 161.

⁶¹ They buccan it, according to *Bruce*; that is, cut it into thin stripes and dry it in the sun.—They cut it from the living animal,

according to *Agatharchides* and *Strabo*. A circumstance so peculiar that it can belong to *Abyssinia* or this coast only.

⁶² See *Agatharchides*, p. 14. *Hudson, Geog. Min.*

A D O U L I.

V. FROM Ptolemais, the next port we are conducted to by the Periplûs is Adûli, at the distance of about three thousand stadia; a space by no means agreeable to the difference between Ras Ageeg and this place⁶³, as little more than two degrees of latitude intervene, which produce short of an hundred and forty miles, where we ought to find three hundred. This we are informed was a regular and established port⁶⁴, and it can be no other than the celebrated harbour and bay of Masuah, so well known by the accounts of the Jesuits and of Bruce, as the only proper entrance into Abyssinia.

It is not my intention to enter farther into the detail of this country, so extraordinary and now so well known, than I am led by the classical authorities before me; but they are so numerous, and so consistent with modern accounts, that to neglect them altogether would be reprehensible.

The Bay of Masuah or Adûli has an extent of six miles, and is⁶⁵ "open to the north east". It contains two islands, upon one of which the town of Masuah stands, and which, from its vicinity to the main, must be that of Diodôrus, as it is called in the Periplûs; so near, says the

⁶³ $15^{\circ} 35' 5''$. Bruce, iii. p. 31.

⁶⁴ Εμπόριον νόμασμον, perhaps, *Jyflus Portus*, in contradistinction to Ptolemais and Berenice, which were not ports but roads.

⁶⁵ Bruce, iii. p. 63.

⁶⁶ In the Periplûs, *κατ' αὐτὸν τὸ Νότον*, which of necessity we must render *secundum Notum*, as *κατὰ τὴν δεξιὰν, à dextrâ*. I know not that the usage is justifiable, but other instances will

occur in the Periplûs, and it is impossible that a south-west coast should lie open to the south-west, perhaps, *κατ' αὐτὸν τὸ Νότον*, "as you sail or direct your course to the south." This island is so called from Diodôrus a former navigator, as we may suppose, and perhaps the Diodôrus Samius mentioned by Ptolemy, lib. i. c. 7.

author, that the sea was fordable". And the natives took advantage of this to attack the ships at their moorings. For this reason the merchants had afterwards preferred anchorage at another island, called Orinè, or the Rock, at twenty miles distance from the coast", which answers to the Dahalac of Bruce, or one of its dependencies". The two islands in the bay are called Sheik Sede and Toualhout, and for the former, which is a title manifestly derived from a Sheik's tomb, De la Rochette has found the name of Dúli", still bearing a resemblance to the ancient Adûli.

At twenty stadia from the shore, and opposite to Orinè lay Adûli, which was a village of no great extent; and three days' journey inland was Koloè", the first market where ivory could be procured". Five days' journey from Koloè lay Axûma, where all the

⁶⁷ The two islands of Sheik Sede and Toualhout are nearly one at low-water, they may have been joined formerly. Bruce, iii. p. 56.

⁶⁸ Two hundred stadia. Dahalac itself is about thirty miles distant, but many of the islands dependent on it are within twenty.

⁶⁹ Dahalac, according to Bruce, vol. i. p. 350. is a low flat rocky island, without water, but furnished with tanks of extraordinary magnitude and structure, for the preservation of the rain water, which falls abundantly at certain seasons. These works are now in ruins, but Bruce supposes them to be the works of the Ptolemies, in the vigour of the Egyptian trade. They may be Sabean, for Dahal, or Del, Bruce informs us, signifies an island, in Arabick; and both this Dahalac and another Del-aqua in the Bay of Zeila, may have been islands where the Sabeanas procured water. I refer this to the inquiry of Orientalists.

In fixing upon Dahalac for Orinè, I am

guided by the two hundred stadia of the Periplûs, and supported by d'Anville. But Orinè signifies mountainous rather than rocky. And Cosmas mentions ἡπο μηλιν δύο. Cosmas is high authority, he was at Adûli himself, and the mention of the islands Alalaion in the Periplûs, evidently the dependencies of Dahalac, if not Dahalac itself, leaves little doubt on the allotment of Orinè. See d'Anville, Geog. Anc. tom. iii. p. 60.

⁷⁰ Bruce met with a Mahomet Adâlai at Masuah; vol. iii. p. 11. which seems to imply that the memorial of Adûli is not lost.

⁷¹ In Tigré, the province of which Sirè is a part, the market is still on the same footing. The best slaves, the purest gold, the largest teeth of ivory must all pass through the hands of the governor of this province. Bruce, iii. p. 251.

⁷² The elephant's track was first seen by Bruce, on the third day, iii. p. 71.

ivory was collected which was brought from the other side of the Nile, through the province called Kuenion, and thence by Axûma to Adûli. These distances answer exactly to place Koloë on the mountains⁷³, which commence at the back of the sands; and eight days' journey to Axûma is a just allowance for about an hundred and twenty miles⁷⁴, which is its distance from the sea. The province of Kuenion is manifestly Sirè, which receives its name from the Dog Star, under the influence of which the rains prevail that are to inundate Egypt, and Siris⁷⁵ is synonymous to Kuenion in the language of the country. Few elephants or rhinoceroses are seen on the coast or in the neighbourhood of Adûli. The masts of them which supply the trade are all killed in the interior.

The sovereign of this coast, from above Berenicè⁷⁶ down the whole tract of Barbaria, is Zoskales, he is very superior to the other princes in the neighbourhood. Civilized in his manners, respectable in his conduct, liberal and honourable in his dealings, and instructed in the knowledge of the Greek language.

The province assigned to this sovereign corresponds precisely with the territory assigned to the Bahr-nagash, or king of the coast, under

⁷³ Turanta is the ridge that divides the seasons, on the east rainy from October to April, on the west cloudy, rainy, and cold from May to October. Bruce, iii. p. 65.

⁷⁴ Fifteen miles a day is not slow travelling in such a country as Bruce describes. Nonnosus makes it fifteen from Adulè. See Photius, in Nonnos.

⁷⁵ Κύων, Canicula Seir, a dog in the language of the Traglodytes. Bruce, i. p. 379. See Dionysius Perieg, where it appears that this account of the Dog Star is as old, at least, as Dionysius, or his commentators. Lin 222.

and Euastathius.

⁷⁶ Having above ventured to fix Berenicè at Belled-el-Habesh, the port of Abyssinia; it is some sort of confirmation to find, that Berenicè is actually included in the government of Zoskales, who is, to all appearance, the Bahrnagash of his age, that is, the king or governor of the coast, a title still preserved notwithstanding the Turks are masters of the ports. See Bruce, *passim*, Bahr=Sea, Nagash=king or governour. Whence the vulgarism of the negus for governour, the great negus, for the king of Abyssinia.

the empire of Abyssinia; and the manners attributed to him are consistent with that pre-eminence which the Abyssinians in all ages seem to have preserved over the barbarous tribes by which they are surrounded.

How it has happened that a nation neither Nigritian or Ethiopick should be settled in this part of Africa, distinguished from all around them, as much formerly by their manners, as they now are by their religion, is a problem that has divided the opinion of all who have visited the country.

That they are not of Hebrew origin appears evident, notwithstanding their own pretension and the arguments of Bruce; because, in the first place, the Jews among them continued a distinct tribe; and in the next, their language is written from the left hand to the right⁷⁷. Paolino, a missionary on the coast of Malabar, asserts, that though the character is different, the principle, genius, and constitution of their language is Shanskreet⁷⁸. A question well worthy of examination by those who are qualified to pursue it. But as far as a private judgment is of weight, I must confess, that the account of Heródotus has always appeared to me the most rational; that they are a nation of fugitives from Egypt. Strabo, in copying this opinion, has added, that the appellation⁷⁹ they give

⁷⁷ See Butler's Horæ Biblicæ, p. 173.

⁷⁸ A speculation well worthy the investigation of Lt. Wilford, and coinciding with his system.

⁷⁹ I think I can fix the site of the Sebiræ so positively as to identify them with the Abyssinians; the place assigned to them by Strabo is Tēnesis, inland from Sabai; and

Sabai is both by d'Anville and Bruce supposed to be Ras Assab=Cape Assab, in lat. 13° 3'. If this be allowed, it accords intimately with Abyssinia: because as Strabo goes inland he reverts to Meroë, which proves that his detail on the coast, and in the interior, do not quite keep pace together. A line drawn from Assab to Meroë would almost touch Axum, and

give themselves is *Sebritæ*¹⁰; a term which signifies *Advenæ*¹¹, the more remarkable, as Bruce observes, that the original title by which they are distinguished in their own history and language, is that of *Habcih*¹², or *Convenæ*. It is impossible to suppose, that the affinity of these two words is accidental.

The flight of these exiles is fixed by Herodotus in the reign of Psammetichus¹³, 630 years before Christ, and only 185 years before the date of his own history; he mentions that they went to as great a distance¹⁴ beyond Meroë¹⁵, as Meroë is from Elephantine, to the number of two hundred and forty thousand; and that the name by which they were distinguished as a nation was *Asmack*¹⁶, or *Askham*; an appellation which Reisk¹⁷ and other Orientalists have supposed to allude to Axum, the Axuma or Axôma first mentioned expressly

cut Abyssinia in the centre. I wish a reference to be made to the whole passage in Strabo. lib. xvi. p. 770, where among much obscurity, much truth may be discovered. And where I should think that Sukho is Suakem, but that Strabo says it is inland. It is in reality a town on an island in a bay, the approach to which is by a narrow channel like a river. See de la Rochette's map of the Red Sea. See also the learned Larcher's notes eighty and eighty-three, on this passage of Herodotus, with his citations from Plutarch de Exilio, p. 601. and from Diodorus, lib. i. p. 77. A passage occurs here in Diodorus, which I ought not to have omitted at the conclusion of the first book, to prove the commerce of the Greeks in the ports of Egypt. Υαμπάτχος . . . παριχέρο φορτία πάντας ἵπποις; μάλιστα δὲ τὰς Φένιξ καὶ Ἑλληνούς. ibid.

¹⁰ He adds, that these *Sebritæ* are under the government of the queen of Meroë, p. 771. which though, perhaps not true, discovers the

connexion, or the similarity of government. ¹¹ Ptolemy has the name of *Sibridæ*, perhaps the same, in the Greek text *Sebardæ*.

¹² Bruce, vol. i. p. 379.

¹³ Psammetichus died in 616. Blair. Herodotus read his history at the Olympick Games, 445, ante Christum. I allow to the middle of Psammetichus's reign.

¹⁴ The distance assigned by Herodotus is fifty-two days to Meroë, and fifty-two beyond, which do not correspond, if the termination is at Axum. See lib. ii. p. 116. But beyond Egypt all must be report. Aristides, Orat. Egyp. contradicts Herodotus as to the distance, as I learn from Larcher, tom. ii. p. 213.

¹⁵ Bruce, vol. i. p. 278, quotes Herodotus in this passage, for what he does not say.

¹⁶ It signifies the left hand. Herod. because they had been guards on the king's left hand, perhaps the left wing of his army. See Diod.

¹⁷ See Wesseling, not. 71. Herod. lib. ii. p. 116.

in the *Periplūs*: a supposition which there is very little reason to discredit. In addition to this testimony of Heródotus, we have a variety of evidence from other authors, that Adûli⁸⁸ was built by exiles from Egypt; and if Bruce had not had such a predilection for his Shepherds, he must have discovered, that the monuments he found at Axûma himself, the obelisk⁸⁹, the tot, the table of hieroglyphics, and the sphinxes, are perfectly Egyptian, and not pastoral, Troglodytic, Meroite, or Greek.

That the Greeks from Egypt landed at Adûli, and subdued the country as far as Axûma, or farther, is evident. Ptolemy Philadelphus pushed his discoveries beyond Meroë by land, and by sea, perhaps, as far as Madagascar; and the famous inscription preserved by Cosmas Indicopleustes, is a proof that Euergetes subdued a considerable part of Abyssinia.

This inscription is reported by Cosmas to have been engraved on a tablet and on a marble chair or throne of the conqueror; and to have been extant in his own age at Adûli, 545 years after the Christian era. It is not without its difficulties; but Cosmas, from internal evidence, was certainly at Adûli⁹⁰ himself, and acquainted with Abyssinia. Ptolemy appears, by the inscription, to have passed the Tazzazze, which he calls the Nile, and to have penetrated into Gojam,

⁸⁸ Pliny, lib. vi. c. 24. Adûlum oppidum Egyptiorum; hoc servi a dominis profugi conderunt.

⁸⁹ All these are noticed by Bruce, and the form of the obelisk delineated: they are mentioned also by Lobo, p. 201. Fr. ed. Obelisks also and pyramids appear in the picture of Adûli, drawn by Cosmas on the spot, anno Christi 532. See Chishull Antiq. Asiaticæ, in

Marmore Ad. litano. See Dissertation, No. ii.

⁹⁰ Though he is called Indicopleustes, I can hardly give him credit for having ever sailed on the Indian ocean. His description of Ceylon has obtained this title for him. But he says himself, he had it from Sopater. And his account of the sea beyond the straits of Bab-el-mandeb may well make us think he never passed them.,

the very province where the fountains of the Nile are found ; the Agows are mentioned by name, and other appellations seem to imply the kingdoms of Tigrè⁹⁰, Bizamo, and Begemder, the country of Geez, with the mountains Samen and Lamalmon. The snow mentioned on those tracts is disclaimed by Bruce⁹¹. But what phenomena were natural to the country in so distant an age, it is hard to determine. What is added, that Ptolemy Euergetes made roads or opened a communication by land between this country and Egypt, is the most remarkable particular of the whole, because this method of intercourse seems wholly obliterated, as far as may be judged by subsequent writers. And Agatharchides does not appear to be acquainted, either with the expedition of a sovereign of his own country, not fifty years deceased, nor with the country, or its port Adûli⁹². His account goes no farther down the coast than Ptolemáis; and even there is not without a mixture of the marvellous.

This, however, is but a negative proof, and not sufficient to invalidate an existing inscription, if Cosmas is worthy of belief; and to his credit be it mentioned, that Bruce⁹³ found the name EUE'RGETES, still visible on a stone at Axúm, which serves as a footstool to the throne on which the kings of Abyssinia are crowned at this day.

⁹⁰ See Dissertation ii.

⁹¹ Vol. ii. p. 96. Bruce says, there is no word in the language to express snow or ice. But Horace says, *Sororū flat nive candida,* a circumstance which now never occurs, as I *think*, Addison says.

⁹² See Appendix, Adûlitic marble, No. ii.

⁹³ Bruce writes, "The inscription though

much defaced, may safely be restored." ΠΤΟΛΕΜΑΙΟΥ ΕΒΕΡΓΕΤΟΥ ΒΑΣΙΛΕΩΣ. How much more authentic would a fac simile of the inscription have been, than the restoration? in which, by an error of the author, or the press, EVERGETΟΥ, is read for ΕΒΕΡΓΕΤΟΥ, vol. iii. p. 132.

On this evidence there is little reason to doubt the expedition of Ptolemy to this country; and however the port of Adûli might be forgotten or abandoned in the time of Agatharchides, it became again conspicuous, as the trade increased in the Red Sea; or at least as it was conducted under the protection of the Roman power in Egypt.

This intercourse will sufficiently account for the character which the Periplûs gives to Zôskales⁹⁴, the civilized state of his manners, and his knowledge of the Greek language. And it is plain that this country was just beginning to be known again, as Pliny mentions Adûli only without any notice of Axûma; and Strabo, who preceded him, makes no mention of either. The manners of these tribes he derives chiefly from Agatharchides, with the addition of some peculiarities⁹⁵; but with the commerce of the coast, and the kingdom of Abyssinia, he was unacquainted, though he accompanied Elius Gallus to Syénè. That journey of Gallus was preparatory to the opening of the trade meditated by the Romans, from their first entrance into the country; the author of the Periplûs⁹⁶ writes as if it had been opened previous to his own time, and with every apparent evidence, that he had traded to Adûli himself. The assortment of his cargo is as specific as a modern invoice.

⁹⁴ So and Suâh, according to Bruce, are roots, implying the Shepherd tribes on this coast. Thus Ma-suah is the port of the Shepherds. Could he not have found So in Zôskales the king of the Shepherds?

⁹⁵ Αγαθαρχίδης Λεύκων; ἱερομάρτιν, p. 771.

⁹⁶ If the Adûlitic inscription is verified, it is the first authentic account of Abyssinia. But the knowledge of it was lost, and the Periplûs is the first work extant, which expressly notices Adûli, Axûma, and the commerce of the country.

PERIPLUS OF THE ERYTHREAN SEA.

E X P O R T S.

'Ελέφας.

Ivory.

'Ρινοκέρως.

Horns of the Rhinoceros.

I M P O R T S.

'Ιμάτια Βαρβαρικὰ ἀγναφα τὰ ἵν Cloth with the knap on, of Egyptian manufacture, for the Barbarian market.
 'Αιγύπτῳ γυνόμινα".

Στολαὶ Ἀρσινοητικαὶ.

Robes made up, the manufacture of Arsinoë or Suez.

'Ασολοι γέθει χρωμάτινοι.

Single cloths dyed, in imitation of those of a superior quality.

Λέντια.

Linnen, supposed to be from the Latin Linteum.

Δικρόστια.

Cloth, striped or fringed.

Λιθία Υαλή.

Glass or Chrystal.

Μυζεῖνη":

Porcelaine, made up at Diospolis in Egypt, in imitation of Oriental.

" Bruce has shewn, that Barbarick, Barbarine, and Berberin, are names derived from Berber or Barbar, the native name of the coast of the Trogloditick, Ichthyophagi, and Shepherds. It goes down the whole western coast of the Red Sea. The Egyptians hated and feared them. It was, therefore, in Egypt a term both of dread and contumely, in which

sense it passed to the Greeks, and from them to the Romans.

" Salmasius everywhere reads *Morrina*, which he supposes to be Oriental porcelaine; if so, the manufacturers of Diospolis are the Prototype of the European imitators. But there is much controversy upon this subject, what the *Morrina* really was.

| | |
|----------------------------------|---|
| Ὀρείχαλκος. | White Copper, for ornaments and for coin. |
| Μελίεφθα χαλκα. | Brass, for culinary vessels, for bracelets, and ornaments of the legs, still worn in Abyssinia. See Bruce, iii. 54. |
| Σιδηρος. | Iron, for spear heads to hunt the elephants, &c. and for weapons of all sorts. |
| Πελύκια. | Hatchets. |
| Σκέπαργα. | Adzes. |
| Μάχαιραι. | Knives, daggers, or kanjars. |
| Ποτήρια χαλκαὶ σφρογγύλα μεγάλα. | Drinking vessels of brass, large and round. |
| Δηνάριον. | Denarii, specie for the use of strangers, <i>Roman</i> coin. If <i>Greek</i> , it would have been Δραχμαι, drachms. |
| Οῖνος. Λαοδικηνὸς, καὶ Ιταλικὸς. | Wine, Laodicean, i. e. Syrian, . and Italian. |
| Ἐλαιον καὶ πολύ. | Oil, but in no great quantity. |
| Χρυσώματα. | Gold plate. |
| Αργυρώματα. | Silver plate. |
| | According to the fashion of the country, and as presents, or for the use of the king. |
| | Ἀσόλλααι. |

| | |
|--|--|
| Ἄσόλλαι. | Watch coats, camp cloaks. |
| Καυνάκαι ἀπλῶι. | Coverlids, plain. |
| οὐ πολλῶ. | of no great value. |
| οὐ πολλαῖ. | not many. |
| Σίδηρος Ινδικὸς, | Iron, of Indian temper or manu- facture. |
| Οθόνιον Ινδικὸν τὸ πλατύτερον ἢ λει- χομένη μονακή. | Indian cottons, wide and plain, perhaps blue Surat cottons, still commou in Abyssinia. Bruce,, vol. iii. p. 62. |
| Σαγμοτογῆναι, οτ Σαγματογῆναι. | Cottons or Muslins, in parcels. |
| Περιζώματα. | Sashes, still an article in great request. |
| Καυνάκαι. | Coverlids. |
| Μολόχινα. | Cotton, of the colour of the mal- lows flower. |
| Σινδόνες, ὄλιγαι. | Muslins, in no great quantity. |
| Λάκκος, χρωμάτινος. | Gum lack, but Salmasius thinks it the colour of a cloth or cotton. Plin. Ex. 816. |

These are the principal articles imported from Egypt into Adūli. The voyage may be made any time from January to September⁹⁸,

⁹⁸ The author expresses himself both in Latin terms and Egyptian. From January to September, that is, from Tybi to Thoth, otherwise one must have supposed an error; for according to Bruce and the charts, the

regular wind blows up the gulph from November to April. Perhaps there are means of coming down from Berenicē or Ptolemáis, with land breezes?

but the best season is September, and this is consistent with the modern account of the winds in this sea.

Opposite to the Bay of Adûli⁹⁹ lie many low and sandy islands called Alalaiot¹⁰⁰, answering precisely to the appendages of Dahalac as described by Bruce, and exhibiting, seemingly, the elements of the modern name; for Dahal signifies an island, in the language of Gcez. Hither, according to the *Periplùs*, Tortoise-shell was brought by the Ichthyophagi; and it is very remarkable that Bruce should observe the beauty of the tortoise-shell here¹⁰¹, to be so exquisite that it is a very profitable article of trade with China and the Indies. Those who know the Roman taste for ornamenting doors, tables, couches, beds, &c. with this shell, will not wonder at its value in the commerce of the ancients.

Below Adûli, about eight hundred stadia, or eighty miles, there is a deep bay with a vast accumulation of sand, in which is found the Opsian stone, that is no where else to be met with. Salmasius has proved that the title of Obsidian or Obsidian given to this fossil from an unknown Obsidius, is an error. He describes it as a dark green which will take a very high polish, and for which reason it is said to have been selected by Domitian to veneer a portico at an enormous expence, that it might by reflection shew if any one was approaching behind his back, and preserve him from the attack of an assassin. There are specimens in England of what the modern Italian artists call Opsian stone; its texture is close enough to admit

⁹⁹ On the right, according to the text, but to make this true you must suppose the writer at Adûli, fronting the sea, with his face to the east.

¹⁰⁰ Pliny reads Aiken, lib. vi. c. 34.

¹⁰¹ Caught between Dahalac and Suakem, but he adds, on low sandy isles laid down between 18° and 28°, where, on his map, he hardly has a single isle.

of any polish "¹⁰²", but it is so dark that the green tinge can only be discovered in a particular light.

The bay where it is found is much harder to discover than the stone itself "¹⁰³". There is nothing like a bay till we come to Beilul, much too distant, and there are no data to guide us but the distance. It is here that the authority of Zoskales seems to terminate; and if Bruce had been able to give us the exact limit between the province of the Bahrnagash and the kingdom of Adel, it is possible that this might have determined the question.

From this bay the coast of the gulph, we are informed, has a more easterly direction to the straits: a circumstance agreeing with the maps of Ptolemy, the report of Agatharchides, and the opinion of the age. This gives the situation of the Bay, both in regard to Adûli and the straits.

The straits of Bab-el-mandeb, or Mandel, which is interpreted the gate of affliction, are in all respects worthy of consideration. They, for many ages, formed the barrier unpassed by Europeans; and from the time this barrier was forced, the knowledge of India and the countries beyond it has been on the increase to the present hour. I speak of Europeans, because I am ready to admit an intercourse between the southern coast of Arabia and Malabar, as early as the most speculative antiquary can require. I acknowledge all that can be attributed to the voyages of Solomon's fleet, as long as they are confined to the coast of Africa. I accede to the progress of Timosthenes down the same coast, perhaps, as far as Madagascar, notwithstanding the inconsistency of his accounts "¹⁰⁴". And I allow

¹⁰² I have seen this stone both rough and in its polished state.

¹⁰³ Hinc in ora Æthiopica, sinus incognitus, quod admitemur cum mercatores ulteriora scrutentur. Pliny, vi. 34. For Beilul, see

the Modern Universal History, vol xii. p. 301. where the ports of Vella and Leila are mentioned, which, if they had been carried beyond the straits, might have been the Siuis Avalites.

¹⁰⁴ See Pliny, lib. vi.

the Phenicians to have penetrated as far as Herodotus shall please to carry them, if he will not conduct them round the Cape of Good Hope. But whatever discoveries we attribute to the Oriental navigators, there is no historical evidence remaining, that the Greeks in Egypt prosecuted these discoveries so as to make them the basis of a settled trade: they contented themselves with fetching the produce of India and Africa from Yemen; if they did pass¹⁰⁵ the straits by accident or design, it was under such an impression of terror, that every thing beyond them was obscured by fable, the sun was a pillar¹⁰⁶, and the sea a curd.

Much that the three first Ptolemies had attempted, was neglected, or forgotten by their profligate and oppressive successors; and if the Romans had not taken possession of Egypt, a short succession of weak and ignorant princes might have reduced this commerce again into the same torpid state, it has experienced under the Mammeluks or the Turks. The dread of venturing on the ocean is expressed by many writers long after the trade to India was established; and Cosmas, in the reign of Justin, speaks of passing the straits as wildly as Pytheas does of the Arctic ocean.

As this species of the marvellous is a constant attendant upon ignorance¹⁰⁷, and an indication that the writer describes what he never saw; so is a plain narrative an evidence of truth, and the absence of prodigies one of the strongest proofs that the author really visited the country he describes.

¹⁰⁵ It has been noticed in the first book, how far their knowledge extended in the time of Agatharchides; he says, the Arabians traded to India, and Indian ships arrived at Arabia, without mention of the Greeks. How the Greeks afterwards reached India before the

discovery of Hippalus will be shewn at large in the third book.

¹⁰⁶ Agatharchides.

¹⁰⁷ Compare the account in the Periplus no lower than Ptolemais Thera with the account of the same course in Agatharchides.

It is from internal evidence of this sort that I conclude the author of the Periplūs to have been himself a trader on the coast of Africa and Malabar. Concerning both he speaks with the temperate language of one who describes objects that are familiar; and the extravagance, such as he has, commences not till he passes Cape Comorin.

In running down the coast from Adûli to the straits, we have no mention of any place but the bay where the Opsian stone is found, upon an extent of near four hundred milcs. The author conducts us at once to Avalítēs, which lay immediately beyond the neck of the straits; and from the time we leave Ptolemáis Thérôn most of the appellations are native, without reference to the reigning family of Egypt, or to the Greek language,¹⁰⁸ for their origin.

The reason of this does not appear, as Strabo, Juba, Pliny, and Ptolemy, all place Arsinoë and Berenícè Epidires in this tract, with slight traces of other Greek names, as Eúmenes and Antíochus¹⁰⁹. If they existed, it is strange that a Greek should have passed them unnoticed, neither does it appear that they are concealed under the native names which Ptolemy reports, in the same manner as our author¹¹⁰.

¹⁰⁸ Orinè, Daphnon, Apokopi are Greek names, but given from circumstances, and perhaps by the first navigator, as Cook named his new discoveries..

¹⁰⁹ Strabo, p. 771. Ptol. p. 112.

¹¹⁰ Διηρ, collum, and so Βρεσύνη ἡπλ. διηρῆς, written indeed Δρέη in Ptolemy, and by a strange mistake in Bruce written and interpreted Diræ or the Furies from the Latin.

D E I R E.

VI. ~~WE~~ are now to pass the celebrated straits of Bab-el-Mandeb, a name which is sometimes thought to be figured in the Mandaeth of Ptolemy. But Mandaeth he styles a village, and places it forty minutes north of the straits¹¹¹. The straits he calls Deirè¹¹², or the Neck. The Periplûs makes no mention of Deirè, but observes that the point of contraction is close to Abalites, or the Abalitick mart; it is from this mart that the coast of Africa, falling down first to the south, and curving afterwards towards the east, is styled the Bay of Avalites by Ptolemy, answering to the modern Bay of Zeila; the country from the straits to Cape Gardefan or Aromata is the kingdom of Adel; and in the modern Adel we may perhaps trace a resemblance to the ancient Abalites¹¹³. However this may be, the Portuguese, upon their first intercourse with Abyssinia, found Adel a powerful kingdom in the hands of a Mahometan race of sovereigns, the determined enemies of the Christian name, and the ravagers of Abyssinia, almost to its destruction. Against these invaders, and against the oppression of Gragni¹¹⁴, the most ferocious and the most successful of all those Mahometan tyrants, it was, that the Abyssinians solicited the assistance of the Portuguese. Albuquerque, the brother of the illustrious general of that name,

¹¹¹ Mandaeth κάπη τγ̄ it ought to be written γ̄ separate, $10^{\circ}\frac{2}{3} = 10^{\circ} 20'$.

¹¹² Δέρη, τα, Dére 11°.

¹¹³ It appears that this, at least, is the opinion of Marmol, lib. x. p. 158. Bruce imagines Adûli to bear relation to Adel, and

if the kingdom of Adel ever extended north of the straits to Adûli this would be admissible. In the Periplûs, Adûli is certainly connected, not with Adel, but with Axûma. I am not certain that Bruce knew the site of Adûli.

¹¹⁴ Anno 1564.

was sent to command the troops appointed to this service, in which expedition he and most of his followers perished. But the knowledge which the Portuguese obtained by that intercourse, and the wars in which they were engaged, on the coast of Arabia, with the Turks and Arabs, furnish the principal means that we have for explaining the topography of the country before us¹¹⁵. The English who still frequent the Red Sea, seldom visit the ports of Adel, as the state of the country presents little temptation to the speculations of commerce. But when the Portuguese first entered these seas, Adel, though a barbarous was still a powerful government¹¹⁶, gold dust, ivory, myrrh, and Abyssinian slaves¹¹⁷ formed the staple of its native commerce, the spices and muslins of India were still found in its ports, and notwithstanding the depredations of a savage war, caravans¹¹⁸ were protected, which arrived regularly from Abyssinia, and the interior of Africa more to the southward. These circumstances will contribute more to illustrate the narrative of the Periplūs than any particulars which can be collected from ancient authors; the Portuguese found the country and the commerce in the same state as the Greeks described it fifteen hundred years before, Arabs

¹¹⁵ Marmol in this part of his work copies Di Britos. By Bur's account we have in Ramusio, these with Oforius and Faria are the authorities referred to.

¹¹⁶ In the voyage of the two Arabs, published by Renaudot, the trade of Zeyla is noticed, in leopard's skins, amber, tortoise shell.

¹¹⁷ Abyssinian slaves are in high estimation by Turkey, Arabia, and India; they are docile,

tractable, intelligent, and endued with talents and courage which always elevate them to favour, and often to command. When commodore Robinson surveyed the coast of Brodia in 1772, an Abyssinian was master of Scindi. How different is this singular race from the Caffres on the coast in their neighbourhood!

¹¹⁸ See Corsali in Ramusio, vol. i. p. 187. Purchas, vol. i. p. 754.

mixed with the natives, the same productions and commodities, the same intercourse with Hadramaut and the coast of Malabar. This state of things ceased, in some degree, with the arrival of the Europeans in India. But as long as the Indian trade was carried on by the Red Sea, the kingdom of Adel must have partaken in it, and its commerce would be similar to the Mosyllitick commerce of the ancients. This trade was singular; for, as far as can be collected from the authorities which remain, it appears, that in the age of Agatharchides, the Greeks of Egypt went no farther than Sabēa or Yemen, to fetch the commodities of India; that they afterwards passed the straits, and found a better market in the port of Mosylon¹¹⁹, one of the harbours of Adel; that in a later period they advanced as far as Hadramaut, on the southern coast of Arabia; and that all these efforts were made for obtaining the productions of India, till at last they reached that country themselves, first by adhering to the coast, and finally by striking across the ocean in consequence of the discovery of the monsoon by Hippalus.

The coast of Adel, styled Barbaria¹²⁰ in the Periplūs, commences at the straits and terminates at Arōmata; in which there can be little doubt, that the author is more accurate than Ptolemy, who extends the name of Barbaria down the coast of Ajan, the Azánia of the Periplūs. Barbaria is much more properly extended to the north than the south; for the Troglodytes on the western coast of the Red Sea ate the original Barbars or Berberines, as Bruce has admirably proved, the perpetual enemies of Egypt, whence their name became a term of odium and distinction, and in this sense passed both to

¹¹⁹ Hence many Indian commodities were called Mosyllitick in the market of Alexandria, cinnamon, spices, muslins, &c.

¹²⁰ See Herodotus, lib. 11. c 158. All wood, 64.

the Greeks and Romans, as an appellation adopted for every thing that was foreign, or contrary and offensive to their own system of life and manners.

The coast of Barbaria is estimated at four thousand stadia¹²¹ in the Periplûs, and is in reality four hundred and fifty geographical miles, without taking its sinuosities into the account. The straits at Bab-el-Mandeb are contracted to three and twenty miles, a space divided into two channels by the intervention of Perim and other isles, both of which were navigated by the ancients, according to their course down the opposite sides of the Red Sea; from the straits, the channel opens in an easterly direction to Cana or Cape Fartaque on the Arabian side, and to Arômata or Gardefan on the coast of Africa. These two promontories form the proper entrance to the straits from the Indian Ocean, and are about two hundred and fifty geographical miles asunder. The latitude¹²² of Fartaque is $15^{\circ} 45' 0''$, and that of Gardefan $12^{\circ} 0' 0''$.

The African side of this channel, which we are now to follow, contains, according to the Periplûs, four principal marts or anchorages, called by the general name of Ta-pera¹²³; and the same number occur in the accounts of the Portuguese, but all attempts to make them correspond are in vain. D'Anville has placed them

¹²¹ Certainly more are intended by the Periplûs but not specified. Four thousand stadia are four hundred Roman miles.

¹²² This is laid down from one of the latest charts, by Lawrie and Whittle; but in these latitudes, and the space between Fartaque and Gardefan, the charts differ greatly.

¹²³ Whether we are to read *Tà πέρα*, or *Táπερα*, is very justly doubted by the commen-

tators. I incline strongly to the former. The marts *beyond* the straits, in contradistinction to those within; properly *τὰ πέρας*, or *πέρας*. And this seems fully confirmed by the Periplûs itself, p. 8. where the MS. has *τάπερας* and *τάπερα*, which Hudson very properly writes *τὰ πέρας*, or *τὰ πέρα*, because joined with *ταῦτα* and *τὰ εύρα*.

according to the measures of the Periplûs. My own wish was to have reconciled Mosylon with the modern Zeyla; first, upon account of a resemblance in the sound of the names; and secondly, because Zeyla is the principal mart of the moderns, as Mosylon¹²⁴ was of the ancients. But this endeavour is favoured neither by the measures or the circumstances described. The leading facts upon which the following arrangement is founded, will be stated in their proper place; they amount, at best, only to conjecture; but this is of less importance, as they terminate in certainty at Arômata, with such striking peculiarities as can be derived only from one who had actually visited the coast himself.

A B A L I T E S , A U A L E I T E S , pronounced AVALITES, whether written with the B or the U.

VII. The first of these marts is Abalites, a road, but not a port or harbour; the goods are conveyed to and from the ships in boats or rafts¹²⁵. This place, according to the Periplûs, is close to the Straits of Bab-el-Mandeb, but Ptolemy has fixed it at the distance of fifty or sixty miles, and makes it give name to the whole Bay of Zeyla, which is styled the Bay of Mosylon by Pliny. There is a Ras Bel¹²⁶ in the charts which is not more than ten geographical miles from the straits; but whether the resemblance of the names marks any relation, is justly to be doubted.

¹²⁴ Marmol speaks of many ancient buildings at Zeyla, but *ancient* may refer to Arabians of a much later date than the age of the Periplûs, lib. Yo. p. 155. et seq. French ed.

¹²⁵ Strabo notices the transferring the cargoes at the straits from ships to boats. May

it not be an error derived from the practice here mentioned?

¹²⁶ Marmol is fully convinced that Abalites is the kingdom of Adel, lib. x. p. 155. 156.

The imports of this place are :

Ταλὴ λιθία σύμμικτος.

Διοσπολιτικὴ ὄμφαξ.

Ιμάτια Βαρβαρικὰ σύμμικτα γεγναμένα.

Σῖτος.

Οἶνος.

Κασσίτερος ὀλίγος ¹²⁷.

Flint glass of various sorts.

Unripe grapes from Diopolis, or, perhaps, vinegar. See Hesych. Stuckius supposes it may be any unripe fruit; and Ramusio supposes it to be a species of stone.

Cloths for the Barbarine coast, of various sorts, with the knap on.

Corn.

Wine.

Tin in small quantity.

The exports are conveyed by the natives in small craft to Kelis [Okélis,] and Moosa, on the coast of Arabia, consisting of

Αρώματα.

Ἐλέφας ὀλίγος.

Χελώνη.

Σμύρνα ἐλαχίση διαφέρεσσα δὲ τῆς ἀλληγε.

Gums, odoriferous gums.

Ivory in small quantity.

Tortoise-shell.

Myrrh in very small quantity but of the finest sort.

¹²⁷ The tin of Britain we thus find on the coast of Africa. May we not justly suppose, that the Africans knew as little of Britain as the Britons of Africa? Yet here we see the medium through which the commodity was

conveyed. How many commodities passed from regions equally distant, without any knowledge of the medium? before any knowledge existed?

Particular attention is due to this last article, because the myrrh ~~of Sabéa~~ is celebrated by every poet and historian, while Bruce says, it is not properly a native of that country, nor does it come to perfection there. Its origin, he affirms, is from Azam in Africa. The Periplûs is perfectly in harmony with this assertion. It mentions the myrrh of this coast as the finest of its kind; it specifies the means of conveying it to Yemen or Sabêa; there the first Greek navigators found it, and through their means it found its way into Europe, under the name of Sabêan.

One other remark of the Periplûs, that the natives of Avalites are uncivilized, and under little restraint, is worth noticing, because it is in correspondence with all the modern accounts we have, which describe the natives as treacherous beyond measure, a quality, perhaps, not mitigated by the introduction of Arabs among them, or the religion of Mahomet, but aggravated by instruction, and pointed by superstition.

We have now four thousand stadia to dispose of, eight hundred to Malao, and a thousand, or two days sail each, are allotted to Mundus, to Mosyllon, and Nilo-Ptolemôn. In the distribution of these d'Anville has acted wisely in considering the distances only; and though I differ from him in the following arrangement, upon the strength of one particular, which is the mention of directing the course east from Mundus, it is not without diffidence in my own assumption.

M A L A Ô.

VIII. EIGHT hundred stadia, or eighty miles to Malao,¹²⁸ more than sufficient to carry the position of this place to Zeyla; but the description given can hardly be consistent with the situation of that town in a bay; the anchorage¹²⁹ is marked as a road upon an open shore, with some protection from a promontory on the east. A protection on the east is more applicable to a coast that lies east and west, but an open road is hardly consistent with a bay¹²⁹ like that of Zeyla; and the security of the following anchorage seems to claim that privilege for Mundus. The natives of Malao are described of a more peaceable disposition than their neighbours, and the imports are such as have been already specified, with the addition of

Χιτῶνες.

*Σάγοι Ἀρσινοητικοὶ γεγυαμένοι καὶ
βιβαμένοι.*

Μελίσφθα ἀλίγα.

Σιδηρος.

Δηνάριον καὶ πολὺ χρυσῖν καὶ αργυρῖν.

Jackets.

Cloaks or blanketing, manufactured at Arsinoe or Suez, with the knap on and dyed.

Brass or copper prepared to imitate gold.

Iron.

Specie, gold, and silver, but in no great quantity.

¹²⁸ Όρμο, ἐπίσταλος, an open road. Stucki¹³⁰ mentions Meigeo as its representative, from Belleforest.

¹²⁹ The whole curvature of the S. W. angle, is called the bay of Zeyla, but Zeyla itself lies in an inner bay or harbour.

The

The exports are

~~ταχίνια~~

Αγαθος ὁ περιποιησις¹³⁰ ἀλύρος.

Κασσία σκληροτέρα.

Δάμανα, Κίττα, Δάκκα.

Κάγκαρος.

Μάκειρ.

Σώματα σπανίας.

Myrrh.

Frankincense, thus, or olibanum
of Adel.

Cinnamon, cassia lignea.

Cinnamon of inferior sorts.

The gum cancamus.

Tila, sesamum, carried to Arabia,
but see Plin, xii. 8. who calls it
an aromatick from India, the
bark red, the root large. The
bark used in dysenteries.

Slaves, a few.

We have in this list the first mention of kassia, cassia, or cinnamon. It is all of the inferior sort, such as the coast of Africa always has produced, and produces still; of little value in any market, where it comes in competition with the cinnamon of Ceylon, but grateful to the natives, readily purchased by those who cannot obtain the Oriental, and still saleable for the purposes of adulteration. How old this traffick was is not easy to be determined, but if the ships from Egypt did not pass the straits when Agatharchides wrote, they certainly reached this coast in the time of Artemidorus, as we

¹³⁰ Περιποιησις must be interpreted according to its reference; if it applies to the port itself it is to be rendered *foreign*, not *native*. But it may be a mercantile term, by which the com-

modity was known at Alexandria, and then *Aἰγαῖος ὁ περιποιησις* will be the *frankincense* which comes from the ports *beyond* the straits, τὰ νέαν. See Perip. p. 8.

learn from Strabo, who mentions the bastard cinnamon, which was the same as the cassia lignea, or hard cinnamon; he adds that the cargoes were transferred from the ships to boats at the port of Adel, proof that this commerce was in its infancy, lib. xvi. p. 763. Slaves are noticed here as an article of commerce, a circumstance common to both the coasts of Africa in all ages; in the present instance it requires no great stretch of imagination to suppose that the ancient traffick of Adel was parallel to the modern, and that the slaves purchased here would consist of both Caffres and Abyssinians; according as the course of war or the plunder of individuals supplied the master, both for home consumption and exportation.

M O U N D U S¹¹, pronounced M' O' O N D U S¹²

* IX. THE next anchorage we are directed to, is Mundus, at the distance of two days sail, or a thousand stadia. D'Anville fixes it at Barbora; in which he is justified by the measures. If I neglect the measures, it is with regret, but there are circumstances mentioned, which induce me to fix Mundus at Zeyla, or at an island previous, called Londi, by de la Rochette, and Delaque by the Portuguese, for Malaô and Mundus, in Ptolemy¹³, differ not in longitude; and his Mosylon is a promontory which may be Barbora, but this

¹¹ Μούνδος in M. V. & M. The true sound is Moondus, and whether the author means to give the native sound, both in this Moondus and in Palestinae¹⁴, (Ceylon,) or whether it is a corruption of the text, may be doubted. But the usage is uniform, and therefore seems to be design rather than accident. Moondus has a more Oriental form than Mundus; and as both this place and

Ceylon were probably named by the Arabians who traded to both, it is natural to look to the Arabic for its meaning. See Peripl. p. 6. ¹⁵ Μούνδος in M. V. & M. Maled¹⁶, a port, long. 78° . lat. $6^{\circ} 30'$. Manda ipsius¹⁷ or ζ , Mundū, a port, long. 78° , lat. 7° . However erroneous these latitudes may be, their mutual relation has a considerable degree of weight.

neither of the other two. Another consideration is, that the *Periplus*, though it does not actually assert that the direction of the course to the east commences at Mundus, yet mentions it here for the first time: this is true, if Mundus be fixed at Zeyla, and this circumstance is the particular inducement for preferring it. The safety of the anchorage here at an island, or under the protection of an island, is marked with precision; and if there be an island at Zeyla, the whole evidence is consistent. Bruce¹³³ mentions the isle of Zeyla; but I have found no other authority; and if he is mistaken, Mundus must be carried back to Delaqua. But upon the authorities alleged, Malaô may be well fixed at Delaqua, and Mundus at Zeyla.

The native traders, at this port, are described as an uncivilized tribe¹³⁴, and the imports and exports similar to those of the preceding ports, with the addition of mokroton, a fragrant¹³⁵ gum, the more peculiar commodity of the place.

MOSULLON, written MOSSYTHON by Pliny, MÓSYLON by Ptolemy.

X. AT the distance of two or three days' sail, or from an hundred to an hundred and fifty miles, we are conducted to Mosylon, the grand mart of the ancients on this coast, the place which gave name to their trade and to the whole bay, in preference to Abalites, in the estimation of Pliny. The distance from Zeyla to Barbora is stated at eighty miles by Osorius¹³⁶, a circumstance not unfavourable to the two

¹³³ Vol. ii. p. 142.

¹³⁶ Osorius, vol. ii. p. 229. Marmol, lib. x.

¹³⁴ Σκληρότεροι, duriores.

p. 156, makes it only eighteen leagues.

¹³⁵ Θυμίαμα, incense.

days' sail of the Periplûs, which, in ordinary computation, are equal to an hundred miles, and which will bear contraction or extension according to the currents or the winds.

The character of Mosyllon¹³⁷ is omitted in the Periplûs, but in Ptolemy it is twice¹³⁸ specified as a promontory, and by his latitude it is carried up a whole degree more to the north than Mundus. This projection is doubtless too extensive, but the feature is true, and suits no other point on the whole coast but Barbora, for Barbora¹³⁹ is a town upon an island¹⁴⁰ close to the shore, adjoining to a narrow cape of considerable extent, which is open, low, and sandy. Its want of height prevents it from affording protection against the N. E. monsoon, and this may be the reason why the Periplûs calls it a bad road. D'Anville has carried Mosyllon another step towards the east, to a river where he finds the name of Soel¹⁴¹, and which he supposes related to Mosyllon; but the Periplûs requires more rivers than we can discover at present, and this stream may well be preserved for Nilo-Ptoleméon, an appellation in which undoubtedly a river is implied.

But there is a still greater probability implied in the very name of Barbora, which is written Borbora, Barbara, and Berbera by

¹³⁷ It is remarkable that Juba makes the Atlantick Ocean commence at Mosyllon; by which we are to understand that he considered the whole ocean which surrounded Africa as commencing at Mosyllon and terminating at Mount Atlas. See Pliny, lib. vi. c. 29. Stuc-kius in loco. See also Gronovius's map for P. Mela.

¹³⁸ Μόσυλον ἄκρος καὶ ἡμιπέργειον, i, i. e. 8°. p. 212.
Μόσυλον δὲ ὑπὲ τὸ ομώνυμον ΑΚΠΟΝ. p. 213.

¹³⁹ Corsali in Ramusio, vol. i. p. 187. The

Universal History mentions a river at Barbora called Howacha, vol. xii. p. 307. which Luldofus says is the river of the capital Aucugareccè. Marmol supposes Barbora to be Mosyllon, vol. iii. p. 156.

¹⁴⁰ This island is called Londi in some charts; de la Rochette applies Londi to what others style Delaqua. See Univ. Hist. vol. xii. p. 307.

¹⁴¹ The Universal History mentions Salim, and supposes it to be Mosyllon.

the moderns, retaining still the title of Barbaria, attributed to this coast by the ancients; and as d'Anville has observed, that the name of the province became applied to the capital in many European cities¹⁴², so have we in this part of the east, the town of Arabia Felix, so named from the province, and the same place afterwards called Aden from the country Adanè. It is probable, therefore, that Barbaria became applicable to Barbora, the principal mart on the coast; and if this be admitted, it gives great weight to the supposition that Barbora and Mosylon are the same. The Mosyllitick coast and Barbarick coast were synonymous.

The imports at Mosylon are the same as have been already specified, with others peculiar to the place.

Σκένη ἀργυρᾶ.

Silver plate, or plated.

Σίδηρα ἐλάσσω.

Iron, but in less quantity.

Λιθία.

Flint glass.

Exports.

Καστίας χρῆμα¹⁴³ πλεῖστον δὲ καὶ μειζόνων πλειστῶν χρῆμα τὸ ὄμπό-
ρου.

Cinnamon, of an inferior quality,
and in great quantities; for
which reason, vessels of a larger
sort are wanted at this mart.

¹⁴² As Paris, Berry, Vannes, Tries, &c. &c.

¹⁴³ Some MSS. and the edit. Basil. read χυμα, which, according to Salmusius, is right. See Plin. Exer. p. 542. He refers it to χυδαῖον, as signifying a great quantity. I un-

derstand it as common, ordinary, of an inferior or cheaper sort. See Perip. p. 28. Οὐδεὶς χυδαῖον, ordinary cottons. But the immediate addition of δὲ καὶ μειζόνων πλειστῶν χρῆμα, implies quantity, and requires χεῖμα, rather than χυμα.

| | |
|--|--|
| Ἐσεδία. | Fragrant gums. |
| Ἄριματα. | Gums or drugs. |
| Χελωνάρια ὄλιγα. | Tortoise-shell, of small size, and in no great quantity. |
| Μοκρότον ὥττον τῆς Μενδιτικῆς. | Incense, in less quantities or inferior to that of Mundus. |
| Λίβανος ἡ περιποτικός ¹⁴⁴ . | Frankincense of the coast of Adel. |
| Ἐλέφας. | Ivory. |
| Σμύρνα σπανίως. | Myrrh, in small quantities. |

The Mosyllitick trade of the ancients has been noticed already ; and the cinnamon mentioned in this catalogue is a sufficient proof of Arabian merchants conducting the commerce of the place. An inferior sort of cinnamon indeed is a native production¹⁴⁵, but the Mosyllitick species is enumerated by Dioscorides as one of prime quality, and consequently not native but Oriental. The immense wealth of the Sabēans, as described by Agatharchides, proves that in his age the monopoly between India and Europe was wholly in their hands ; but the other tribes of Arabia traded to India also ; and the Greeks of Egypt by degrees found the way to Aden and Hadramaut in Arabia, and to Mosylon on the coast of Africa. Here they found rivals to the Sabēan market, and supplied themselves at a cheaper rate.

¹⁴⁴ Imported either from the opposite coast of Arabia, which did always and still does produce this article, or from India, the incense of which, Niebuhr says, is better and purer than the Arabian ; but it rather refers to τὰ τρέπα.

¹⁴⁵ A specimen of African cinnamon I have seen in the curious and scientifick collection of Dr. Burgess ; it is small, hard, and ligneous, with little fragrance.

After another course of two days, or an hundred miles, we are conducted to Nilo-Ptoleméon. It is the last distance specified, and may be terminated either at the Soel of d'Anville, or at Metè, where there is also a river: the former is preferable, because the Periplùs makes mention of two rivers at least between Nilo-Ptoleméon and Aromata; and if we assume Soel for Nilo-Ptoleméon, we can find two other rivers, one at Metè, and another near Mount Elephant, which is the Elephant River of the Periplùs, and the Rio de Santa Pedra of the Portuguese. Strabo mentions the name of Nile on this part of the coast.

NILO-PTOLEMAION.

XI. AT Nilo-Ptoleméon we exhaust three thousand eight hundred out of the four thousand stadia allotted by the Periplùs to the range of marts, which are called by the common name of Te-para¹⁶; and speaking in a round number, it may be presumed the author estimates his four thousand as terminating at this place: this gives a measure of four hundred Roman miles, where the real distance is about four hundred and fifty; a correspondence certainly sufficient where there is no better estimate of measurement than a ship's course: and, sensible as I am that the particulars of d'Anville are better adapted to the distances at the commencement, the conclusion of the course and the position of Mofylon are more consistent in the arrangement I have adopted. It is, however, at best but hypothetical, and submitted to the future determination of those who may obtain a more perfect knowledge of the coast.

¹⁶ Tāwaga sic forsitan dicta quia se mutuo seema, as already noticed, τὰ μίαν. See Perip. tangunt et consequuntur, Stuckius. But it p. 8, and Stuckius Com. p. 29.

But

But we are now arrived at a point in which there will be nothing equivocal. The promontory of Arōmata, with its two inferior capes, Elephant and Tabai, will be described with a precision in perfect correspondence with modern observation; and the circumstances are so peculiar, that they bespeak the testimony of one who delineated them on the spot.

Marts, TAPATÉGÈ. DAPHNÔN MIKROS. ELEPHAS, Prom.
Rivers, ELEPHAS. DAPHNÔNA MEGAS, or AKANNAI.

XII. The places which occur are Tapatégè⁴⁷, the lesser Daphnôn⁴⁸, and Cape Elephant; the rivers are the Elephant, and the greater Daphnôn, called Acannai. Neither place or distance are assigned to any of these names, but we may well allot the rivers Daphnôn and Elephant to the synonymous town and cape; and these may be represented by the modern Metè and Santa Pedra. The river at Metè is described by the Portuguese as dry at certain seasons. When they landed here under Soarez⁴⁹ in great distress,

⁴⁷ The literal translation of this passage runs thus: "Sailing along the coast two days from Mofylon, you meet with Nilo-Ptolemaion, Tapatégè, the lesser Daphnôn, and Cape Elephant then towards the south west, [in Διένα,] the country has (two) rivers, one called the Elephant River, and the other the greater Daphnôn or Akannai after this the coast inclining to the south, [in τὸ Νότον ἦδε,] succeeds the mart of Arōmata, and its promontory, which is the termination of the Barbarick coast, and a projection more easterly than Apokopa."

The text is so very corrupt in this part of the work, and the points of the compass so discordant, that, after seeing Mr. Gosselin's

work, I endeavoured to reconcile them by following his system, and carrying Cape Arōmata, which I have fixed at Gardefan, to Daffni; but though this does relieve in some degree the expressions Εἰς Αἴγα and Νότον, still the two promontories of Gardefan and Daffni are so strongly marked by Arōmata and Tabai, that I returned to my own arrangement. Tabai is characterised as a promontory at the head of a Chersonese, and that is such evidence as hardly to leave a doubt upon the question.

⁴⁸ Dioscorides Daphnitis est Cassia species, sic appellatur a Daphnuite magno vel parvo ubi olim forsitan provenit. Stuckius, not. p. 24. sed potius a Lauretis, p. 25.

⁴⁹ Maimol, lib. x. p. 200.

they

they found the place deserted and no water in the river; but a woman whom they seized directed them to open pits in the channel; and by following her advice, their wants were relieved. Commodore Beaulieu¹⁵⁰, who anchored a few leagues north of Gardefan, received similar instructions from the natives with the same success. These circumstances are mentioned to identify the existence of rivers on this coast; and I think I can discover in the map, framed by Sanson for the French edition of Marmol, that the learned geographer paid attention to these rivers of the Periplûs.

Cape Elephant is formed by a mountain conspicuous in the Portuguese charts, under the name of Mount Felix or Felles, from the native term, Jibbel-Feel¹⁵¹, literally Mount Elephant. The cape is formed by the land jutting up to the north from the direction of the coast, which is nearly east and west; and from its northernmost point the land falls off again south east¹⁵² to Cape Gardefan, the Arômata of the ancients.

But if we have the authority of the Portuguese for a river at Metè, we learn from an English navigator the same circumstance at Jibbel-Feel. Capt. Saris¹⁵³, in 1611, stood into a bay or harbour here, which he represents as having a safe entrance for three ships

¹⁵⁰ An intelligent French Commander, in 1619, whose voyage is published by Melchizedec Thevenot, and inserted in Harris. The pits Beaulieu opened were on the shore.

¹⁵¹ Jibbel-Feel, Arabick, from the Heb. **جبل**.

Bruce is angry at the misnomer of Felix. Perhaps other names in the Periplûs would admit of translation, if we knew the language to refer to.

¹⁵² *Eis rd. Nôrø.* Perip. not correct; because, according to the author's own system, Arômata is the easternmost point of Africa.

¹⁵³ Saris calls the place *Felice*, from the Portuguese *Felix*, but as he describes it between Gardafui and Demety, [Metè,] there can be no mistake. Purchas' 8th voyage of the East India Company, vol. ii. p. 340.

a-breast, and that both wood and water were in plenty; he adds also, that several sorts of gums, *very sweet in burning*, were still purchased by the Indian ships from Cambay, who touched here for that purpose in their passage to Mocha.

The whole detail of this coast, from the straits of Bab-el-Mandeb to Cape Gardefan, is principally derived from the Portuguese, who ravaged it under the command of Soarez, in the years 1516 and 1517. Corsali, whose account is preserved in Ramusio, served in the expedition. Soarcz^{**} had been sent against the Turkish force collected in Arabia, a service which he conducted with great ignorance and ill success. The distress of his fleet he endeavoured to relieve by plundering the coast of Adel; Zeyla, Barbora, and Metè were deserted on his approach, where little was obtained. Zeyla is described as a place well built and flourishing; but of Adel, the capital, little is to be found. That the power of the kingdom was not injured by these ravages appears from the success of its arms against Abyssinia between this time and the year 1564, which extended almost to a conquest, with increasing hatred against every thing that bore the Christian name. Little is known of this country since the decline of the Portuguese, but that the government is Mahometan, and the governed are removed but a few degrees from the Cafres of the coast below.

At the marts which succeed Nilo-Ptolemœon in the Periplûs, no articles of commerce are specified, except frankincense, in great quantity and of the best quality, at Acannai. This is styled *Peratick*^{**}, or *foreign*. But it cannot be admitted in that sense as to

^{**} This expedition is found in Oſorius, di Barros, Faria, and Bruce.

^{**} Ο περιπλόκος.

... it is noticed expressly as a native of the country. Still it will lead us to have a distinct idea of the ports beyond the Red sea, and to these ports of Barbary, called La-pera, "the port beyond," or "the right connection," of the text, will signify the ports beyond the Red sea.

The articles obtained here would naturally be brought from (Pers) beyond, and would be known by this time in the market, and the market of Alexandria, in consequence of goods imported in Sabaea, Hadramaut, or India. The article belonging to Alexandrians, and is consequently specifying the remote ports where those commodities were obtained, which they knew by the name of Peratick.

This is not the only difficulty in this part of the work before us: the quarters of the heaven are dubiously described; the distances are ill connected, or imperfect. There is at least one interpolation, or a corruption equivalent; and it is not known that any manuscript is in existence, which might lead to a correction of the

¹⁷⁵ "Axiom is a porous Axum & whence
comes the Sogos PINETAI, "where more
especially the Peratick, frankincense, is
of greatest quantity, and of the best quality, is
produced." All the testimonies of the
council unite in supposing Thus or Frankin-
cense to be the peculiar native produce of
Sabaea. But Bruce and Niebuhr both agree,
that it is not a native, and that the best is not
produced in Sabaea, but imported from India
and Indus. But in this they do not agree
most probably, both probably misinterpreted
those corrupted words in the original of which
pertained Niebuhr to that of our manuscript.

¹⁷⁶ To wit, the ports beyond the Red sea.
See Trip. p. 8.

¹⁷⁷ Kai epiwipha' Eridan, [not Ophne le Bahr
magnum] The five concluding words are a
manifest interpolation, because we are not yet
arrived at Ardonata, and Ophne is not mentioned.
From Ardonata to Ophne the tendency of the
text is south west; and from Ophne it con-
tinues the same; but from Elephas the coast
lies south east to Ardonata; and Elephas is
not connected with Ophne at all. Wickliffe
and Hudson both complain of the corrupt
state of the text. And Sigismundus Lichius,
who published the MS. in 1750, makes no
mention of Prophetic, Basil, 1750, in his intro-
ductory. Erskine takes no notice whether he
had the manuscript. See last Prophetic Basil,

text. Under these circumstances, indulgence is due to the attempts which have been made to preserve, in any degree, the connection and consistency of the narrative.

We now arrive at Cape Ardmata or Gardefan, a place of importance in every respect; for it is the extreme point east of the continent of Africa; it forms the southern point of entrance upon the approach to the Red Sea; and it is the boundary of the monsoon from causes that are almost peculiar. Its latitude is fixed

| | | |
|----------------------|----|--|
| $6^{\circ} 0' 0''$ | N. | by Ptolemy ¹⁵⁹ . |
| $12^{\circ} 0' 0''$ | - | Beaulieu. |
| $11^{\circ} 30' 0''$ | - | D'Anville. |
| $13^{\circ} 30' 0''$ | - | Bruce. |
| $12^{\circ} 0' 0''$ | - | in Lacam's chart, and the general one by Lawrie and Whittle. |

Beaulieu, who anchored within four leagues of Gardefan, describes it as a very high bluff point, and as perpendicular as if it were scarped. The current comes round it out of the gulph with such violence that it is not to be stemmed without a brisk wind, and during the south west monsoon, the moment you are past the cape to the north, there is a stark calm with insufferable heat.

This current, we may conclude, is not constant, and probably depends upon the direction of the winds; for Faria mentions a ship that was separated on the coast and carried to Zeyla by the current.

¹⁵⁹ It is very remarkable that the latitude of this coast, which was visited every year by Ptolemy should be so very erroneous on merchants he must have seen at Alexandria.

And Purchas⁶⁰, from Fernandes, asserts, that the current sets into the gulf during the increase of the moon, and out of it upon the wind. The current below Gardefan is noticed by the Periplūs as flowing to the south, and is there, perhaps, equally subject to the change of the monsoon.

There is great diversity in writing the name of this promontory, and of its two subordinate capes. Bruce is very urgent in directing us⁶¹ to write it Gardefan, and not Gardefui⁶², as it appears upon many of the charts; Gar-defan, he says, signifies the straits⁶³ of Burial, and we have had Metē or Death before, names which imply the sufferings or terrors of the navigators. The Greeks, if their appellations may be admitted as a proof, were either better omened or less alarmed.

T A B A I.

XIII. At Arōmata the Periplūs marks in the most pointed manner, that the coast falls in to the south; and in another place specifies its southerly or south westerly direction to the limits of ancient discovery. But before it touches upon this, another cape is marked, called Tabai, which answers to the d'Orfui⁶⁴ of the Portuguese, about seventy-five geographical miles south of Gardefan. And thus is Arōmata, with its two inferior capes, defined as precisely by the Periplūs as Gardefan could be by the best geographers of the moderns.

⁶⁰ Faria, vol. i. p. 15⁸ Purchas, vol. i.
P. 751.

⁶¹ Vol. i. p. 443.

⁶² An error, perhaps, for cape, ibid.

⁶³ Harris, in Beaulieu's Voyage, calls it Orpin. Beaulieu lay near two months to the southward of Orpin or Tabai. Harris, i. p. 726. Orpin approaches to Opōn.

The author expressly mentions also that Arōmata is further east than Apókopa, and actually the most eastern point of the continent; the anchorage, he adds, is totally exposed, and in some seasons very dangerous, because it is open to the north. The certain prognostic of an alteration in the weather is when the sea changes colour and rises turbid from the bottom. Upon the sight of this, the vessels which are at anchor here weigh instantly, and fly to Tabai for shelter. This remark is the more valuable, as the author himself mentions it rather as the effect of an accidental change of the wind than of the monsoon. But as we have observed before, that in the south west monsoon, Beaulieu found a dead calm to the north of Gardefan; from the same cause, in the season of north east monsoon the calm will be on the south of Arōmata and Tabai, or d'Orfui²⁵⁴.

With this delineation before us of the most prominent feature on the coast, whatever failure may be discovered in fixing the stations from the straits to the cape, it can by no means discredit the originality of the work. Distance of time, the changes of power, or commerce, may have defaced the particular features we have described, but the general appearance of truth and fidelity is indisputable. If any accident should lead an English navigator again

²⁵⁴ Orfui is written d'Orfui, Arfur, d'Arfur, and Carfur, possibly for Capé Arfur; but the true orthography seems that of Bertholet, who writes d'Afur; or, perhaps, as Ressende does, Daffui; apparently the same word as Tabai, if we consider that the Greek pronunciation of Tabai is Tavai, and that Tavai, Davai, and Davui, naturally approach Daffui; but I confine this to future inquiry upon the spot; and future inquiry may likewise determine whether the two capes Daffui

and Gardefui are relative appellations, for this I suspect, and think it possible that the relation may be discoverable in the Arabick: the same relation holds good in another form of orthography, which is Afun and Garde-fun. Could I ascertain which was right, I should at ready conjecture that Opône [or Ophône] was Afun, as that Tabai was Daffui. But there is no end of conjecture, without a knowledge of the language.

On this barbarous and neglected coast¹⁶⁵, it is very possible that the descriptions of places, brief as they are, may be recognized by a judicious observer, and the ancient narrative be established on sufficient investigation.

The articles of commerce obtained at Arōmata we may collect from its title; for Arōmata, (although Salmasius informs us it is the name for drugs in general,) in this journal, at least, signifies gums, spices, odours, and fragrant productions of every kind. The vessels which traded here we may suppose anchored to the north or south of the cape according to the season, and must have received or delivered their cargoes in boats and rafts, as has been noticed at previous anchorages. The change of the monsoon must likewise have been watched, as it is noticed in the Periplūs; no particulars of import or export are however mentioned here; but at Tabai or d'Orfui, it is said, that they brought the same articles of commerce as to the coast above, and received the following commodities in exchange, which were native:

Karrīa.

Γύρη.

Ασύφη.

"Αρματα.

Cinnamon.

Cinnamon of a smaller sort.

Cinnamon, ordinary.

Fragrant gums; but as inserted here, perhaps, a species of cinnamon.

¹⁶⁵ In the fleet sent to cruise at the mouth of the Red Sea, in 1798 and 1799, when the French in Egypt were suspected of an intention to escape to India, some intelligent English officer may have made observations

which would contribute more to solve the difficulties of this navigation than any which can be collected from the documents which have been published.

Μάγλα, Μοτω.

Λίθανος.

Cinnamon of inferior quality.

Frankincense.

At Arômata terminates the modern kingdom of Adel, and the Barbaria of the Periplûs; and here the coast of Ajan or Azania commences; in which our author is more correct than Ptolemy, who extends the limits of Barbaria farther to the south. Azam¹⁶⁶ or Ajam signifies water, according to Bruce; and in this sense is applied to the western coast of the Red Sea, in opposition to the Arabian side where water is not to be had. If Ajan has any reference to this, it seems very ill applied to the coast before us; for between Arômata and Apókopa is a most desolate shore, where hardly the name of a habitable place occurs in the modern charts, and where the Periplûs, from Opônè, is a total blank. At Apókopa, the Cape Baxos [or Shoal Cape,] of the Portuguese, commences the coast of Zanguebar, so called from the island of that name, the trace of which is preserved in the Zengifa of Ptolemy.

The following table is now submitted to the reader, with a just confidence in its general correspondence, but not without requesting a candid allowance for possible error in some few particulars:

¹⁶⁶ A kingdom called Aden is placed here by the maps; but the authors of the Universal History deny its existence, and so does Ludol-

fus; but the natives, he says, are called Hadicns, i. e. Ajans, whence the corruption into Adcans and Adea.

Coast of Azania from Cape Arōmata to Rhapta [and Prassum.]

[N. B. D before the name of a place marks D'Anville. * Points supposed to be ascertained. ? Doubtful.]

| Stadia of the Periplūs. | <i>Arrian.</i> | <i>Ptolemy.</i> | <i>Lat. North.</i> | <i>Modern Name and Latitude.</i> |
|----------------------------|--|--------------------------------|--------------------|---|
| Allowed 900 | I. Arōmata - | Arōmata - | 6° 0' 0" | D. * Gardefan " 11° 45' 0" |
| | II. Tabai ¹⁶⁷ - | Panopios Vicus | 5° 0' 0" | D. * d'Orfui 10° 30' 0" |
| | | Panōn ¹⁶⁸ . | | Daffui. |
| | III. Opōnē | Opōnē - | 4° 45' 0' | D. C. Delgado ? Bandel Caus } 9° 45' 0" |
| | Four hundred stadia from Tabai round the Cherlo- ne, hence the coast tends still more to the south, the current also sets to the south. | | " " | Bay of Galee |
| 400 | IV. | Zengifa ¹⁶⁹ - | 3° 30' 0" | Related to Zenzibar? |
| | V. Apōkopa the less | Phalangis Mops. ¹⁷⁰ | 3° 30' 0" | Morro Cabir ? 8° 0' 0" |
| | VI. Apōkopa the greater | Apōkopa - | 3° 0' 0" | Zorrella ? |
| 3000 | Six days' sail, a river no- ticed, but none occurs in the maps. | Noti Cornu ¹⁷¹ | 2° 12' 0" | D. { * C. Paxas 4° 35' 0' Southern Horn } Shod Cape. |
| | VII. Little coast | Little coast - | 1° 0' 0" | |
| | VIII. Great coast | Great coast ¹⁷² | 2° 30' 0" | D. * Magadasho 2° 0' 0' N. |
| 3000 | Six days' sail. | | | |

7300

¹⁶⁷ Between Arōmata and Tabai it is called the Bay of Belha or Belya.

¹⁶⁸ It has been suggested to me that Panopros might allude to Πανόπειον, but there is only mere conjecture to guide our inquiries. I have supposed, upon no better ground, that Orfui might be concealed in Opōs; but Ptolemy writes Panōn Kōmē. The village of Panōn, or the village of Pans and Satyra? A name, perhaps, given from the rude appearance of the natives. It is remarkable that the Periplūs should mention men of gigantick stature on this coast; and that Beaulieu, certainly without any knowledge of the Periplūs, should notice the same appearance. See his Voyage in Harris and Melchuz. Thevenot, he passed the stormy season near this very spot. Μίγησι δι εργασιαν μετ ταύτην πάντη γίγαντες ορεσσι δερραι κατον κέρδει. Perip. p. 10. This circum-
stance indeed is at Rhapta.

¹⁶⁹ Ptolemy's Azania commences at Zengifa. See lib. i c. 17. Zengifa and Phalangis have both the same latitude, and may be identified with Morro Cabir, if that has three points. The term Zengifa is curious, as related to the coast of the Zinguis or Cales, so early as Ptolemy.

¹⁷⁰ Phalangis is described as a forked mountain with three heads. Ptole. lib. i. c. 17. This gives it a character which will enable any future navigator to fix it for a certainty.

¹⁷¹ It is remarkable that Ptolemy, lib. i. c. 17, where he details this coast, makes no mention of [λαρις αρχας] the southern Horn.

¹⁷² Two degree, thirty seconds is certainly an error, as the account is carried to the south.

PERIPLUS OF THE ERYTHREAN SEA.

| Stadia of the Periplus. | Arrian. | Ptolemy. | Lat. North. | Modern Names and Latitudes. |
|---|------------------|---|--|--|
| Allowed 7300 | | | | |
| IX. | | Effina ¹⁷³ Under the line. | 0° 0' 0" | Brava? - 1° 0' 0" N. |
| 500 X. Serápión, one day's sail | Serapion | - | 3° 0' 0" S. lat. | |
| 500 XI. Nikon, one day's sail | To Nikè Niki. | - | 4° 45' 0" S. | |
| XII. Several rivers and roads 3500 each a day's sail, in all seven, ending at the | | | | * Coast of Zanzibar and Melinda. |
| XIII. Pyralaan islands and the new canal. | | | | Mombaça? - 3° 50' 0" S. |
| XIV. Eitenediom - Menou- 2000 théias, two courses of twenty-four hours each ¹⁷⁴ | | Rhapton River Rhapton metro- polis of Bar- baria Rhapton, prom. | 7° 0' 0" S. 7° 0' 0" S. 8° 20' 12" S. | { Pemba? D. 4° 45' 0" S. Zanzibar? D. 6° 35' 0" S. * Monfia D. 7° 32' 0" S. Paté Sio Am- paca Lamo D. 10° 50' 0" S. Melinda of Marmol and di Barros 10° 35' 0" S. Quiloa and Cape Delgado, lat. 10° Veddes and the author. 8° 30' 0" S. |
| 1000 XV. Rhabta, two day's sail | | | | Madagascar? Mofambique? 15° 0' 0" S. |
| 14,800 stadia = 1480 miles, divided by 75, the number of Roman miles in a degree, give 19 degrees, 55 miles. The real distance from Gardefan to Quiloa is somewhat more than 20 degrees. | | Menouthias Prafum ¹⁷⁵ Head of the Nile | 12° 30' 0" S. 15° 30' 0" S. { 13° 0' 0" S. 12° 30' 0" | |

¹⁷³ There is an Afun which Stuckius from Belleforest supposes to be Effina; but it is only one more corruption by writing Afun or Afun, which is the same as Affui or d'Affui. This may be proved by consulting Barbosa in Ramus: vol. i. p. 290, and the Modern Universal History, vol. xii. p. 307. Belleforest is of little authority. He wrote a Cosmography in 3 vols. fol. about 1560.

¹⁷⁴ Νοχθειπαρ.... τὸ Σεράπιον τῷ ΜΤΧΘΜΕΡΟΥ φέρεται λόγῳ
Ζηλίαν οὐσιώδεστα γενιαν. Ptol. lib. i. c. 90.

¹⁷⁵ Prafum, from Praefos, green. Marcian. Heret. apud Hudson, p. 12.

N. B. At page 126, note 247, the change of Arōmata, imputed to Mr. Goffin, is not founded, and I take this opportunity of recalling the imputation, as the correction was too late for the press.

Observations on the foregoing Table.

If it were at any time allowable to build on the measures of an ancient journal, it might be presumed that the present instance affords grounds for it, justifiable in an uncommon degree. The latitude of Gardefan, according to d'Anville, is¹⁷⁶ $11^{\circ} 45' 0''$ N. and that of Quiloa $8^{\circ} 30' 0''$ S.¹⁷⁷ making $20^{\circ} 15'$, where the *Periplūs* gives $19^{\circ} 45'$, an approximation never to be expected in estimates of this sort, and liable to suspicion merely on account of its correspondence. But let it not be imagined that Quiloa or Cape Delgado are assumed for Rhaptum from the distances of the journal, because, if they cannot be supported by circumstances, they may justly be abandoned.

Whatever may be the corruption of the text in Eitenediommenouthesias¹⁷⁸, all the commentators, with common sense in their favour, are agreed, that the latter part of this strange plurisyllable points out the island Menūthias; and the suffrages greatly prevail in favour of making this island the Zanguebar of the moderns. Now there are three islands almost in a line, Pemba, Zanguebar, and Monfia, placed between latitude $5^{\circ} 30' 0''$ and $9^{\circ} 0' 0''$. All these islands lie (as the author asserts of his Menūthias,) about three hundred stadia or thirty miles from the coast, and there is no other island in the whole range from Gardefan to Quiloa, which answers to this description, but these three. One of them, therefore, doubtless is Menūthias; and as Zanguebar is the centre, the most conspicu-

¹⁷⁶ $12^{\circ} 0' 0''$ alii.¹⁷⁷ $10^{\circ} 0' 0''$ alii.¹⁷⁸ See *infra* and Appendix No. iii.

ous, and the one which gave name to the coast in all ages¹⁷⁹, it is, with great justice that we should give this the preference. Two additional circumstances confirm this; the Pyralaan islands are two thousand stadia previous, and Rhaptum one thousand stadia subsequent. Neither of these distances are inconsistent¹⁸⁰, if we assume Mombaça for the Pyralaan isles, Zanguebar for Menuthias, and Quiloa for Rhaptum: and that we may assign the Pyralaan islands justly to Mombaça there is great reason to believe; because they are evidently close to the continent, and not at thirty miles distance like the other three; and because notice is taken of a new cut or canal, which intimates the continent in its vicinity, and cannot apply to an island which lies in the open sea. Add to this, that Mombaça is on an island in a bay, separated by a very narrow channel from the main, and we have then a circumstance parallel¹⁸¹ to the new canal of the journal, a work which might as well have been executed for protection or convenience by the Arabs who

¹⁷⁹ Ptolemy's Zengifa is the first instance of the name. Zingi, or the coast of Zingi, is found in all the Oriental writers, and Zinzibar in Marco Polo. Zinguis are blacks or Cafres, according to the Universal History, vol. xii. and Zangue-bar the Cafre coast.

¹⁸⁰ They would suit better with Monfia than Zanguebar; but the reason for preferring the latter is stated here, and will be considered more at large presently. N. B. Duarte de Lemos, in 1510, landed at Zanguebar and drove the natives to the mountains; a proof that it is not a low island as Menuthias is described by the Periplus. Faria, i. p. 158.

¹⁸¹ Castaneda speaks of Mombaça as an island *hard by the firm land*, p. 22. Osorius says, it is on a high rock with the sea almost

surrounding it, vol. i. p. 60. May not *almost* have been done away by a cut of this sort. Faria calls it an island made by a river which falls into the sea by two mouths, vol. i. p. 41. See the island delineated in a Portuguese map, Melchiz. Thevenot, vol. i. part 2. It is joined to the continent at low-water by a causey. Marmol, lib. x. p. 150. Fr. Ed. and the Universal History writes, "The city was once a peninsula, but hath since been made an island by cutting a canal through the isthmus." Vol. xii. p. 341. This circumstance might with equal propriety, and on equal grounds, have taken place in the age of the Periplus, for the security of the ancient Arabian settlers as of the moderns.

settled there in those early ages, as by those whom the Portuguese found there, three centuries ago”.

It now remains to be observed, that the preceding table manifestly proves the correspondence between Ptolemy and the Periplūs. The names of the places differ little, and both accounts terminate at Rhapta; for the Praenum of Ptolemy is not ranged under his detail of this coast, but is introduced in another chapter incidentally, bounding over seven¹³³ degrees at one step, without the intervention of a single circumstance or place. This Praenum he has by his own confession fixed from conjecture only¹³⁴; and this, with his Menūthias, clearly distinct from the Menūthias of the Periplūs, will be considered in its proper place. I must now add, for the credit of the Periplūs, that it carries that appearance of consistency with it, which would naturally attend it, if composed by a voyager from his journal, while the catalogue of Ptolemy is by no means in harmony with his commentary¹³⁵.

A Z A N I A, Coast of A J A N.

The Periplūs is entitled to no small share of praise for the accuracy with which it defines the limits of the territories on the coast from the straits of Bab-el-Mandeb to Rhapta; and this is the more remarkable as the demarkation of Ptolemy is not consistent with the natural

¹³³ Mombasa was taken by Almeyda.

c. 17, where Opōnē is six days' sail from Panopros or Pandū, while the latitude differs but

¹³⁴ Rhapton From. $8^{\circ} 20' 12'$, Praenum,
 $15^{\circ} 30' 0'$.

fifteen minutes; at p. 112. Marcius, his copyist, was so sensible of this, that he has not ventured to give the stadia on this coast. See infra.

¹³⁵ See lib. i. c. 9.

¹³⁶ Compare lib. iv. p. 112, c. 7. with lib. i.

divisions of the country. The Avalitick gulph terminating at Mount Elephant, he styles the coast of the Troglodytes, but the Periplûs restrains this appellation to the country that forms the margin of the Red Sea, and terminates at the straits ; and from the straits to Cape Gardefan, the author calls it Barbaria ^{**}, corresponding naturally with the limits of the modern Adel. At Gardefan, the kingdom of Aden ^{**} commences, the coast of which is styled Ajan, in perfect harmony with the Azânia of the Periplûs. But Ptolemy, who commences his Barbaria at Mount Elephant, carries the same appellation down to Rhapta, which he calls the metropolis, and consequently removes the commencement of Azânia beyond the boundary which is in reality its termination. The Periplûs, it is true, extends this title beyond the limits of the modern Ajan ; for the coast of Zanguebar commences with Cape Baxos, or at farthest with Melinda, while the Periplûs carries on Azânia several degrees farther to Rhapta ; by which it appears that the author was not informed of any change in the name to the utmost extent of his knowledge.

There are, however, divisions of the coast and boundaries fixed, which appear correspondent to those which the Portuguese found upon their arrival. These are preserved in a manuscript map of Bertholet's ^{***}, inserted in Ressende, and strongly confirm the opinion that the author of the Periplûs describes rather what he saw himself than what he collected from others.

^{**} Barbaria is the constant term of Al-Edrissi and the Oriental writers. Barbara is still a town on this coast, and to all appears the Mysylon of the ancients.

^{**} An imaginary kingdom, according to

the Universal History.

^{***} Bertholet dates one of these maps (for there are several by him) 1635, and writes, Petrus Bertholet primum Cosmographicum Indianorum imperium faciebat.

The first division of Bertholet comprehends the tract from the bay succeeding Cape d'Affui to Cape Baxos, answering nearly to the Opône and Apôkopa of the Periplûs.

| | | | | |
|------------------|---|---------------|---|----------|
| Cape de Gardafui | - | Gardefan | - | Arômata. |
| Eneeeda de Belha | - | Beyla bay. | | |
| Cape d'Affui | - | Arfur, Carfur | | Tabai. |

| | | | | | |
|--|--------------------|---|--------------|---|----------------------|
| Odelerto: join the MS. perhaps for Deserto, the Desert Coast. | Enceada da Galee | - | Bandel Caus? | - | Opône. |
| | Bandel d'Agoa | - | Delgado. | | |
| | Enganos de Surdos. | | | | |
| | Cunhat. | | | | |
| | Os Bodios. | | | | |
| | Punta dos Baxos | - | Shoal Cape | - | Apôkopa. Noti Cornu. |

The second division takes the general name of Magadoxo from the principal town, and answers to the Little and Great Coast of the Periplûs.

| | | | | |
|----------|--------------|---|---|--------------------|
| Magadoxo | Os Bafaros | - | - | } Little Coast. |
| | Bandel Velho | - | - | |
| | Magadoxo | - | - | } Great Coast. |
| | Mariqua | - | - | |
| | Brava | - | - | Effina of Ptolemy. |

The third division is by islands and rivers all the way, corresponding exactly with the number of seven rivers, as stated by the Periplūs.

| | | |
|-----------------------|-------------------------------|--|
| | Boubo, Rio 1 ¹⁸⁹ . | { Coast of Zanguebar ? Serapion ? and Melinda } Nicon ? |
| | Jugo, Rio 2. | |
| | Cama. | |
| | Tumao, Ilha. | |
| | Sangara, Ilha. | |
| | Tema, Ilha. | |
| Islands and Rivers | Guasta. | |
| | Mane, Rio 3. | |
| Pattè | Quiami, Rio 4. | { Punta da Bagona, Rio 5. Empaça. Pattè, Rio 6. |
| | Punta da Bagona, Rio 5. | |
| | Empaça. | |
| | Pattè, Rio 6. | |
| | Mandaro, Rio 7. | |
| | Lamo. | |
| | Jaque. | |

Zanguebar is a native appellation given to the coast from the island of the same name. It is noticed as early as the two Arabian voyagers and Marco Polo ¹⁹⁰. M. Polo calls the coast the isle of Zamzibar, and gives it a circumference of two thousand miles, evidently applying it

¹⁸⁹ It is fruitless to allot Serapion or Nicon to any particular name; but the correspondence of seven rivers in the ancient and modern account is highly remarkable.

¹⁹⁰ The doubts which were entertained concerning the authenticity of the voyage of these

Arabians, published by Renaudot, have been fully cleared up. The original has been found in the Royal library at Paris, the existence of which had been confidently denied by Martin Folkes, and other very learned men.

to the then undiscovered country of Lower Africa. In the two Arabians and other Oriental writers we read the same name given to this tract, with the title of Zingis or Zingues applied generally to all the inhabitants of the eastern coast of Africa.

The first trace of this word is found in the *Zengisa* of Ptolemy¹⁹¹, which he places at Mount Phalangis on the coast of Ajan, answering, as far as I can discover, to the Morro Cobir of the Portuguese. It is possible that the commencement of Zanguebar and of the Zingis was placed here by the natives in that early age, or that the influence of the title extended so far. Of this, indeed, there are no traces in the *Periplūs*. I suspect Menuthesias, the term used in that work, to be equivalent in its application to the extension of the modern title of Zanguebar, from the island to the coast.

O P Ô N È.

XIV. AFTER these general illustrations we are now to proceed to the particular places on the coast; and the first of these is Opône, which is honoured with the title of a mart¹⁹² both in Ptolemy and the *Periplūs*. The distance assigned from Tabai of four hundred stadia, or forty miles, makes it correspond sufficiently with Ban-del-Caus, which is a bay, or, as its name implies, a port¹⁹³. Opin is a

¹⁹¹ Zengi (with the g hard) is the Persian term for Caffres, and the distinction between them and Hhabash, Abyssinians. India Literata, Valentin, p. 385. Kiaferah, Co-fari, Caffres, are in most Oriental writers distinguished in the same manner, and considered as Zinguis, opposed to Abyssinians and Arabs. There is a history of the Zingi by Novairi an Arab, in the Royal Library at

Paris. Herbelot.

¹⁹² Εμπόρος, in contradistinction to Οχεις, but οχεις are sometimes ιμπόρια.

¹⁹³ Bandel is a corruption of the Persian Benders, or Bunder. A very undefined term for a port, harbour, road, or landing place. The bay, or rather the falling in of the land south of Daffui, is called Galee in Resende and Bertholet.

name which occurs in the map of Sanson, infested by Marmots; but whether there be any modern authority for it may be doubted, for Sanson was not unacquainted with the Periplus, and he may have assigned a place accordingly for the Opône of the journal. The mention of a current setting round Tabai, or Cape d'Orfui, down this coast, is in all probability consistent with the experience of voyagers in that age; but whether this current is constant or changes with the monsoon, must be determined by those who visit this coast in different seasons of the year. Stuckius observes that according to Bellforest, Opône is Carfur, of which he ingenuously confesses his ignorance; but Carfur is only one of the corruptions for Cape d'Orfui, which is written Arfur, Arfar, and Arfui. And as that cape is evidently Tabai, there can be little doubt in fixing upon the next port, Catus, for the true position of Opône.

The imports here are the same as those specified at the anchorages preceding.

The Exports are,

Κασσία.

Cinnamon, native.

"*Αρμενία.*

Fragrant gums, native.

Μέτη.

Cinnamon of inferior quality.

Δελτα, κρύσταλλα καὶ ἄλις.

Slaves of a superior sort, and principally for the Egyptian market.

"*Ἄγικτον πράχωρι μᾶλλον.*

Tortoise-shells in great abundance and of a superior quality.

Χελώνη πλείση καὶ διαφορωτέρα τῆς ἀλλης.

- The season for sailing from Egypt to all these ports beyond the straits¹⁹⁴, is in Epiphi, or July, and there are many articles of commerce regularly¹⁹⁵ imported here from the marts of Ariakè [Malabar¹⁹⁶,] and Barygáza [Cambay, or Guzerat]; such as,

| | |
|---|-----------------------------------|
| Σῖτος. | Corn. |
| "Ορυζα. | Rice. |
| Βέτυρον ¹⁹⁷ . | Butter, ghee. |
| "Ελαιον Σησάμινον. | Oil of Sefamum. |
| 'Οθόνιον ἢ τε μοναχὴ καὶ ἡ σαγματογύρη. | Cottons, coarse and fine. |
| Περιζώματα. | Sashes. |
| Μέλι τὸ καλάμινον τὸ λεγόμενον σάκχαρι. | Honey from the cane called sugar. |

Many vessels are employed in this commerce expressly for the importation of these articles, and others which have a farther destination, dispose of part of their cargoes on this coast, and take in such commodities as they find here in return.

This passage I have rendered literally, as containing one of the most peculiar circumstances in the ancient commerce of this coast.

¹⁹⁴ Τὰ πίραι. See Periplūs, pp. 5. 8. Τάπαρα, compare.

¹⁹⁵ Συνήθως, usually, customarily.

¹⁹⁶ Malabar is properly the coast lower down towards Cape Comorin; but the whole western coast takes this name generally. Ariakè is confined to the part between Guzerat and Bombay.

¹⁹⁷ Ghee or butter in a half liquid state is

an article of trade from all the western coast of India, to the Mekran, to the Gulph of Persia, and the coast of Africa. In India it forms a part of every sacrifice, and almost of every meal; it is in as much request as oil among the Greeks. Some traveller has remarked that the taste for grease is universal, from the whale blubber of the Greenlanders to the butter of the Indians.

It manifestly alludes to an intercourse, totally distinct from the navigation of the Egyptian Greeks, carried on by the native merchants of Guzerat and Malabar, with the inhabitants of the coast of Africa, whom we shall presently find to be Arabs; it speaks of this intercourse as established ¹⁹⁸, and that seemingly previous to the appearance of the Greeks in the country; and when it is immediately subjoined, that there is no potentate who has an extensive influence, but that each mart has its own peculiar sovereign ¹⁹⁹, it presents a picture both of the trade and country identically the same as the Portuguese found them after an interval of fifteen centuries.

I cannot contemplate this portrait without indulging my imagination, in supposing that the East India trade existed in this form, as long before the interference of the Greeks, as it continued after the destruction of the Roman power in Egypt; and that the nature of the monsoons was perfectly known to the inhabitants of the two opposite coasts, as many centuries before it was discovered for the Greeks by Hippalus, as it continued afterwards till the arrival of Gama at Melinda.

APÓKOPA the Less, APÓKOPA the Greater.

XV. FROM Opôncè the Periplûs conducts us along the coast of Azânia, tending still more to the south west, to Apókopa the Less and the Greater. The distance is fixed by a course of six days,

¹⁹⁸ Συνίθετο.

¹⁹⁹ Τυραννος Μοι. Al Edrissi mentions the Arabs on this coast as speaking a different language from that of Arabia, and unknown to the Arabs of his age, p. 24. The fact

ought to be such, if these tribes had been upon the coast for six or seven hundred years before he wrote, as it evidently appears from the Periplûs that they were.

equal, .

equal, by estimation, to three thousand stadia, or three hundred miles, without any notice of an anchorage or a mart; without mention of any article of commerce as delivered or received; even in this a resemblance is preserved with the modern appearance of the coast, for our maps are as barren as the journal, and it is probable that the want of water on the shore, mentioned by Beaulieu and other voyagers, has condemned this tract to sterility and desolation in all ages.

Ptolemy mentions Zengisa next to Opône, and places it in the same latitude with a Mount Phalangis, to which he assigns a three forked head. This character is indelible; and the observation of any voyager who may visit this coast will correct my error, if I am mistaken in allotting Zengisa to Bandel d'Agoa, and Phalangis to Morro Cobir. I find no other mountain on the coast of Ajan; and the correspondence of Apókopa the Less with the Apókopa of Ptolemy, as well as Apókopa the Greater, with his Southern Horn, gives such an appearance of consistency to both authors, that it confirms me in the arrangement I assume.

Answering to Apókopa the Less we find a Zorzella in the maps, though we have nothing either in our ancient or modern accounts to determine the relation; but the Southern Horn is manifestly a cape: it is noticed as such by Ptolemy; and the obscurity or corruption of the Periplùs, which intimates an inclination to the south west ²⁰⁰ at Apókopa, (however dubiously applied to the cape or river,) still proves a connexion between this place and the Southern Horn. Both also commence the following step with the Great and Little

²⁰⁰ Stuckius, p. 30. expresses the same ΑΙΓΑ in the Periplùs points out the Νότια κήρας; opinion, and concludes that the mention of of Ptolemy.

Coast ; and consequently, as far as we have proceeded, both are consistent with our modern accounts and with each other.

In fixing this Southern Horn at Cape Baxas, or the Shoal Cape of the Portuguese, I am not only directed by d'Anville²⁰¹, but confirmed by the detail of the coast. And that the Periplūs means Apókopa for a promontory is clear from a previous passage, where, when it is stated that Cape Arômata is the most eastern point of all Africa, it is peculiarly marked as more to the east than Apókopa ; a certain proof that Apókopa itself is also a promontory ; and if so, there is nothing within distance north or south, which can answer to it, but the Southern Horn of Ptolemy, and the Cape Baxas of the moderns. The mention of a river²⁰² here by the author is the only circumstance for which we find no equivalent in the modern accounts.

It is worthy of remark, that the termination of ancient knowledge on the western coast of Africa was a horn as well as on the eastern ; the western horn²⁰³ is a limit to the voyage of Hanno, and the geography of P. Mela, as this Southern Horn formed the boundary of the eastern coast in the age of Strabo²⁰⁴. But discovery had

²⁰¹ Geog. Anc. vol. iii. p. 62.

²⁰² The passage itself is apparently incorrect to a degree.

²⁰³ This is sometimes also called the Southern Horn, but by Mela, Hesperi Cōrnū.

²⁰⁴ Τιλαύτας ἀκρωτήριος τῆς παραλίας ταῦτης νότια Κίρας. Strab. lib. xvi. p. 774. "The Southern Horn is the last promontory on this coast." But it is not quite certain that the Southern Horn of Strabo is the same as Ptolemy's, as he mentions it in one place as next but one to Mount Elephant, and in that case it would be Arômata; he has the names of several places from Artemidorus, correspondent in

some sort with those of the Periplūs, which prove, that if in the time of Agatharchides the vessels from Egypt went only to Ptolemais Thérōn, they passed the straits in the time of Artemidorus.

"Ἄλλη τέ Νίλος, another Nile = Nilo Ptolemaion.

Daphne = Daphnona.

Libanotrophus prom. = Akannai?

Arômatophori = Aromata?

The mention of several rivers also with Mount Elephant, &c. &c. proves the existence of a trade here and a knowledge of the coast, but it is not distinct.

advanced to Rhapta before the writing of the *Periplūs*, and to Prasum in the time of Ptolemy. By comparing this progress of knowledge, it seems as well ascertained that the author of the *Periplūs* is prior to Ptolemy, as that he is posterior to Strabo.

ΑΙΓΑΛΟΣ ΜΙΚΡΟΣ, ΑΙΓΑΛΟΣ ΜΕΓΑΣ, the LITTLE COAST, the GREAT COAST.

XVI. We come now to the two last divisions of this navigation. The first distinguished by a course of six days, and the latter by one of seven. Six days are attributed to a tract called the Little Coast and the Great, on which not a name occurs, neither is there an anchorage noticed, or the least trace of commerce to be found. We are not without means, however, to arrange these courses, as during the last division of seven days a river is specified at each anchorage, and we can discover precisely the part of the coast where these streams begin to make their appearance. The intermediate space, therefore, between Cape Baxas and this point must be attributed to the Little and the Great Coast ; and the termination of it may be fixed at the modern Brava, which corresponds sufficiently with the Effina of Ptolemy. Effina he places under the line, and Brava is only one degree to the north of it; and though little is to be built upon his latitudes, it is remarkable, that his error is greatest at the commencement of the coast, and diminishes in its progress to the south. At Gardefan it is near six degrees, at Cape Baxas it is little more than two, and at Brava it may, by proportion, be reduced to one.

But there is another method of reducing our conjectures to certainty ; which is, by taking a proportion of six to seven ; in which case, if we fix the termination of the six days' sail at Brava, the conclusion of the remaining seven coincides precisely with Mombaça,
the

the correspondence of which will be established by a variety of deductions, so as hardly to leave a doubt upon the arrangement.

Within the space which is allotted to this Little and Great Coast, amounting nearly to five degrees of latitude, we find only one place noticed on our modern charts, which is Magadasho²⁰⁵. I dare not say that this has any relation to the Megas²⁰⁶ of the Greeks, but I recommend it to the enquiries of the Orientalists; for Ma and Maha signify *great* in the Shanskreet and Malay, and in this sense most probably enter into the composition of Madagascar in the neighbourhood. Of Magadasho²⁰⁷ farther mention will be made hereafter; but except in the existence of this place, our modern charts are as barren as the Periplûs; even in the absence of information there is a resemblance and correspondence; and as the following division is characterized by seven rivers, which are actually found upon the coast at present, there cannot be an error of any great consequence in assuming Effina for Brava²⁰⁸, and terminating the Great Coast of the Periplûs at the same place.

SERAPION, NIKON, the SEVEN ANCHORAGES at SEVEN RIVERS.

XVII. The division we are now to enter upon requires more consideration, as we are approaching to the limits of the journal;

²⁰⁵ This name is written Macdoscho and Mocadeffou by the Arabick authors, Magadoxo and Mogaduxo in the charts.

²⁰⁶ Αγαλὸς ΜΕΓΑΣ. I do not suppose that the Greeks translated, but that they caught at a resemblance of sound; but it is very possible that Magadasho is of a much later date.

²⁰⁷ The river at Magadasho is styled Nil-de-Mocadeffou by the Arabs. Lobo. Second Dissertation, ed. Le Grande.

²⁰⁸ Stuckius mentions Effina as the place

where Ariston built a temple to Neptune, as the boundary of his discovery, when he was sent down this coast by Ptolemy, but I find no authority for this assertion. According to Diodorus, (vol. i. p. 209. ed. Wes.) Ariston does not seem to have gone beyond the Bay of Zeyla or Gardefan, and even that is conjecture. If he had reached Effina, Strabo would have proceeded as far, but he stops at the Southern Horn. See lib. xvi. p. 774. Salmas. Plin. ex. p. 1183. Stuckius, p. 30. and

and more especially as I am obliged to dissent from d'Anville, which I always do with diffidence, and which I never do without compulsion, or from the imperious necessity of the circumstances described. These seven rivers, or even a greater number, cannot be a fiction. They may be seen in Bertholet ²⁰⁹, in d'Anville's own map, and every good map of the coast; and they are the more remarkable, because from Cape Gardefan to Brava, a space of more than seven hundred and sixty miles, water is found at only three places ²¹⁰, as far as I can discover. Among the number of these streams must be comprehended the mouths of the Quilimancè, or Grand River of d'Anville; it falls into the sea not far from Melinda by three mouths, or perhaps more, and in the islands formed by the division of the stream, or in their neighbourhood, we find Patè, Sio, Ampaça, and Lamo, obscure places, where there was some trade when the Portuguese first discovered this coast ²¹¹. Here d'Anville places the Rhapta of Ptolemy and the Periplùs, neglecting altogether the Pyraláan islands and the Menúthias of his author ²¹², and not observing that Rhapta must be two days' sail to the south of the latter. My own desire is, to assume these spots surrounded by the divided streams of the river for the Pyraláan islands ²¹³, and to make up the

²⁰⁹ See sheet 26. MS. of Ressende, Brit. Mus. It is not pretended that the seven anchorages can be distributed to the seven rivers, but there are seven rivers or probably more, and the general picture of the tract is all that is contended for as true.

²¹⁰ At Bandel d'Agoa, north of Cape Baxas, at Doura an obscure stream where we find Bandel veijo, and at Magadasho.

²¹¹ Geog. Ancienne, vol. iii. p. 64.

²¹² I sometimes think that d'Anville in this has followed Marmol, who places Rhapta at a river near Melinda, that is, the Obii or Quilimancè, lib. x. p. 146, &c. and p. 208.

²¹³ I am enabled, from Ressende's MS. to give some particulars of these islands, which have escaped the research of the authors of the M. Universal History. Lamo, Ampaça, Patè, and Cio, lie at the different issues of the Obii or Quilimancè, in latitude $2^{\circ} 1' 0''$. The government

the number of the seven rivers with those separate streams which occur previously on the coast. The great river which forms these islands is called the Obii²¹⁴ by the Portuguese: they sailed up it for several days, and describe it as a magnificent stream: it possibly derives its origin from the south of the Abyssinian mountains, as the Nile flows from the northern side, and perhaps gives rise to a geographical fable of Ptolemy and the early writers, who derive the source of the Nile from a lake in the latitude of sixteen degrees south²¹⁵.

The two first anchorages of the seven are called Serapiôn²¹⁶ and Nicôn²¹⁷, both in Ptolemy and the Periplùs; and it does not appear clearly from the text of the latter, whether they are to be reckoned inclusive or exclusive. I have taken them separate in the preceding table of the coast; but if they are to be included in the number, two days' sail, or an hundred miles, must be deducted

ment of all was in the hands of the Mohammedans, but there was a Portuguese custom house at Patè. Vasco de Gama first made the coast of Africa at Patè on his return from India. Ships were not suffered to touch here, unless the monsoon prevented them from getting to Mombasa. The government maintained three thousand Moors as soldiers. Cio had six hundred, and was a piratical state. Ampaça had fifteen hundred, was tributary to the Portuguese, and much attached to the nation. These were divided by different branches of the river, but Lamo was more splendid than the others, had a king of its own, and fifteen hundred Moorish troops. It was tributary to Portugal, but no Portuguese resided in the city. The trade of all these places consisted in dates, Indian corn, and provisions.

²¹⁴ See Marmol, lib. x. p. 208, and p. 144. Barbosa, &c.

²¹⁵ Ptolemy in $12^{\circ} 30' \text{ C}^{\circ}$, or $13^{\circ} 0' \text{ O}^{\circ}$.

²¹⁶ Whatever doubt may arise about Nicôn, from the fluctuation of orthography, there can be no hesitation in allowing that Serapiôn must be the name of an Egyptian, or an Egyptian Greek. Voyagers of this sort frequently gave their names to ports first visited by them, or had this honour conferred upon them by others; thus we have, in Strabo, the altars or ports of Pitholáus, Lichas, Pythagelus, Leon, and Charimotius, on the coast between Mount Elephant and the Southern Horn. Strabo, lib. xvi. p. 769. et seq. from Artemidorus. Cicero mentions a Serapiôn as a geographer who contradicted Eratosthenes. May he not have been a navigator on this coast? or might not a place have been so named in honour of him by a navigator? See Epist. ad Atticum, lib. ii. ep. 6.

²¹⁷ Ptolemy writes Niki and To Nikè: it is only a variation of orthography.

from the total, a difference far more excusable in an ancient journal than a modern one.

These names, evidently derived from the Greeks, afford no means of finding an equivalent for either, but in regard to the seven rivers and anchorages, our evidence is complete; this intimation the reader is requested to accept for the present, till we can present him with particulars from the discovery of the moderns. The general character of the coast is clearly marked by the actual existence of the rivers, and the termination of the seven courses at the Pyralaan islands, points to Mombaça almost to a certainty.

M O M B A C A.

XVIII. THE preference due to Mombaça is founded upon a variety of combinations. It has been noticed already, that by the two divisions of this tract from Apókopa [Cape Baxas] to the Pyralaan islands, the proportion of six days sail to seven would direct us to Mombaça, and it must be observed now, that two hundred miles southward would carry us to one of the three Zanguebar islands, and another hundred miles added to this would conduct us to the neighbourhood of Quiloa; these are the distances of the Periplûs to Rhapta, and at Quiloa or Cape Delgado must be fixed the limit of discovery in the age of the author. In treating of this limit, Quiloa will be generally assumed as more conspicuous, as it is a place of importance, and as it is the seat of an Arab government, certainly more ancient than the Periplûs itself.

Let us now consider the peculiar characteristics attributed by our author to Rhapta. The place, he says, has obtained this name

among the navigators who were Greeks, from the word *παντως*, which signifies *to sew*, and was applied to this place because they found here vessels not built like their own, but small, and raised from a bottom of a single piece with planks which where sewed together²¹⁸ [with the fibres of the cocoa,] and had their bottoms paid with some of the odoriferous resins of the country. Is it not one of the most extraordinary facts in the history of navigation, that this peculiarity should be one of the first objects which attracted the admiration of the Portuguese upon their reaching the same coast, at the distance of almost fifteen centuries? They saw them first at Mosambique, where they were called Almeidas, but the principal notice of them in most of their writers is generally stated at Quiloa, the very spot which we have supposed to receive its name from vessels of the same construction.

R H A P T A.

XIX. “THE inhabitants here are men of the tallest stature and “the greatest bulk”²¹⁹, and the port is subject to the sovereign of “Maphartis”²²⁰, which is in Yemen, lying between Moosa and the “straits;

²¹⁸ Προσεγμένας παττᾶς πλαισίων.

²¹⁹ A circumstance noticed also by Capt. Beaulieu near Cape Gardefan.

²²⁰ Νέμεται δὲ ἀντὴ κατὰ τὸ δίκαιον ἀρχῶν ὑποτετταῖς τῇ βασιλίᾳ τῆς πρώτης γενομένης Αέρεις; ὁ Μοφαρζίνης Γύρωνος.

What is meant by τὴς ΠΡΩΤΙΣ γενομένης Αέρεις, I dare not pronounce. Dodwell supposes it to relate to the Roman custom of dividing provinces according to their proximity

•or date of conquest, as Arabia prima, Arabia secunda: and he observes justly, that this style belongs to a later age than what I assume, i.e. the reign of Claudius. — To this I answer, that the Romans never had any province at all in this part of Arabia. They ravaged the coast it is true, as they razed Aden, and they collected a tribute as early as the reign of Claudius, as appears by the account of Plocamus's freedman, and so did the Portuguese upon

" straits ²²¹; besides this power of the king, the merchants of Moosa " likewise exact either a tribute ²²², or demand custom; for they " have many ships themselves employed in the trade, on board of " which they have Arabian commanders and factors ²²³, employing " such only as have experience of the country, or have contracted " marriages with the natives, and who understand the navigation " and the language." This mixture of Arabs, Mestizes, and Ne- groes presents a picture perfectly similar to that seen by the Portuguese upon their first arrival; and except that another race of Arabs, of another religion, had succeeded in the place of their more barbarous ancestors, and had carried their commerce to a greater extent, the resemblance is complete.

The Imports here are,

*Λόγχη προπυεμένως ή τοπικῶς κα-
τασκευαζομένη ἐν Μάσα.*

Javelins, more especially such as are actually the manufacture of Moosa.

Πελίκαια.

Hatchets or Bills.

Μαχαίρια.

Knives.

several coasts where they had not an inch of territory; but the Romans never had a province on this part of the coast of the Red Sea, or on the ocean. If they had an Arabia prima and secunda, these must have been in Petraea, south of Jordan. It is for this reason, I think that ΠΡΩΤΗΣ has no relation to a Latin term, but belongs to Yemen, the first and principal state of Arabia Felix, the king of which was Charibael, with whom the Romans always treated, and Maphar or Mophareites appears

to be a territory under that division. See Periplūs, p. 13.

²²¹ It is a tract in Arabia mentioned next to Moosa, the capital of which is Sauè; if we might be allowed to read Σάων for Σάων, it would be the modern Sana, capital of Yemen, for the Periplūs says, it lies three days inland; but this is highly dubious.

²²² Τρίφορον αὐτήν οἱ Χρήσι.

²²³ Χρειακῆς.

'Οπήτια.

Awls.

Λιθίας 'Υαλῆς πλέιονα γένη.

Crown glafs of various sorts.

And to these commodities we must by no means omit to add a store of corn and wine carried out by the traders, not for sale, but for the purpose of entertainment, and ingratiating themselves with the natives. This is so truly consonant with the modern system of carrying out spirits to America, and the coast of Africa, that the resemblance should by no means be suppressed.

The Exports are,

'Ελέφας πλειστος, ἥσσον δὲ τῷ Αδελτικῷ.

Ivory in great quantity, but of inferior quality to that obtained at Adooli from Abyssinia.

*Ρινόκερως.

Rhinoceros, the horn.

Χελώνη διάφορος μετὰ τὴν Ινδικὴν.

Tortoise-shell of a good sort, but inferior to that of India.

Νάυπλιος ὀλίγος.

The articles of import here are nearly the same as an African invoice at the present moment; and in the exports it is some degree of disappointment not to find gold. For as the fleets of Solomon are said to have obtained gold on this coast, as well as the Arabs of a later age, and the Portuguese, we naturally look for it in a commerce which is intermediate; and the nearer we approach to Sofala the more reason there is to expect it. Our present object, however, is not the trade but the geography.

• It has been already stated ²²⁴, that the measures of the Periplūs accord with the degrees of latitude between Gardefan and Quiloa within five miles ²²⁵, a disagreement upon twenty degrees wholly insignificant. But if it should be thought that the measure by a day's course is too vague to support the assumption of Quiloa for Rhapta, it may be answered, that in a voyage performed both ways, with the different monsoons, and repeated yearly, this estimate may be reduced almost to a certainty ; far more so at least than any courses the Greeks could estimate in the Mediterranean. Ptolemy's objection to this will be considered in its proper place : for the present it is sufficient to say, that the agreement of the measures is the first principle for the assumption of Quiloa ; the second is, that the peculiarities of the coast coinciding with the detail of the journal all point to the same spot ; the seven days courses terminating each at a river, cannot be applicable to any tract but the coast of Melinda, comprehending the mouths of the Obii, and the termination of these at Mombaça, which is assumed either as one of the Pyralaan islands, or as a place strangely marked by the title of the New Canal. One reason for placing this at Mombaça is, that a canal implies something on the continent rather than an island in the sea, and the Pyralaan islands preceding this seem, therefore, naturally to be the spots enclosed and divided by the mouths of the Obii, on which Ampaça, Sio, Pate, and Lamo are placed, all marts of later date, corresponding with some of the seven courses of the Periplūs. Another reason for assuming Mombaça is, that it is on an island in

²²⁴ See Table, p. 135.

but if it can be reconciled within a degree, or

²²⁵ It is not meant to build on this approximation : the charts differ considerably,

even two, the correspondence is extraordinary.

a bay separated from the land by so narrow a channel that it is joined to the main by a causey at low-water²²⁶; there is a strong similarity in this to a canal cut, or supposed to be cut; but a third point we may insist upon, is still more convincing, which is, that neither the Pyraláan islands, or the New Canal (whatever it may be) are mentioned as lying at a distance from the coast, whereas the next station is expressly noticed as an isle three hundred stadia, or thirty miles off shore.

M E N O U T H E S I A S.

XX. THIS isle is the Eitenediommenuthesias of the *Periplûs*²²⁷, a term egregiously strange and corrupted, but out of which the commentators unanimously collect Menûthias, whatever may be the fate of the remaining syllables. That this Menûthias must be one of the Zanguebar islands is indubitable²²⁸; for all three, Pemba, Zanguebar, and Monfia lie nearly at thirty miles from the coast, and this character is indelible. Which of the three it may be, should not hastily be determined, but it can hardly be Pemba, which is the first, or most northerly, because, if the first were touched at the others must be passed, and ought to have been noticed; neither would the distances agree, either from the new canal to Pemba, or from Pemba to Rhapta. Zanguebar as the centre and most con-

²²⁶ Marmol, vol. iii. p. 150. Oforius, vol. i. p. 50. Castaneda, p. 22.

²²⁷ See Appendix, No. iii.

²²⁸ Stuckius supposes the Pyraláan isles to answer to the Zanguebar islands, or Zanguebar itself; but it is evident the Pyraláans are near the main, and these at thirty miles dis-

tance. If it should ever be found that Pemba, in its various orthography Penda, Pendea, Pendrea, &c. bears any resemblance in a native sound or form, to Pyraláan, this question might require farther consideration; but at present I can discover no such relation. See Stuckius, p. 31.

spicuous naturally attracts our attention, and Zanguebar is assumed by Vossius in opposition to Salmasius, Stuckius, and a cloud of opponents²²⁹. Not that we must suppose Vossius prejudiced in favour of one of these islands more than another, but that it must be one of the three, and ought to be that with which the distances of the journal are most consistent. The journal is very precise on this head, it gives two²³⁰ hundred miles from the New Canal to Menûthias, and one hundred from Menûthias to Rhapta; marking at the same time the distance of the island from the main, and the return of the course from the island to the continent. A reference to the map will now shew that these measures agree with the course from Mombaça to Monfia, rather than Zanguebar, and from Monfia to Quiloa. It will be thought fanciful to suggest a resemblance between Monfia²³¹ and Menûthia; but I cannot restrain myself from the supposition, though I should not venture to fix a position on such grounds. However this may be, I shall now give the description of the island from the *Periplûs*, and leave it for future navigators to determine which of the two islands corresponds best with the characters that are noticed; these are, that it is low and woody, that it has rivers, and abounds with a variety of birds, and with the mountain or land tortoise. It has no noxious animals, for though it produces crocodiles, they are harmless. The natives

²²⁹ See Salmas. *Vlilian.* Exerc. p. 1243. Vossius ad Melam. *Cellarius*, lib. iv. c. 8. p. 163.

²³⁰ See Table, p. 135.

²³¹ Greater corruptors of foreign names than the Greeks there cannot be, and the first found that suggested an idea to a Greek, generally led him to find a Greek name, and

often to add a Greek tale of mythology to the name. There can be little doubt that *Zocotora* is a native term of the earliest date, but the Greeks turned it into *Dioscorides* at the first step. Possibly Monfia was made Monthia in the same manner; possibly also some affinity might still be traced from the natives.

use the Rhapta or fewen vessels²³², both for fishing and catching turtle, and they have likewise another method peculiar to themselves for obtaining the latter, by fixing baskets instead of nets at the interstices of the breakers²³³, through which the sea retires, when the tide is going out. These circumstances, it is probable, will enable some future visitor to determine which of the two isles we are to call Menūthias; that it is one of them is demonstrable. There is some reason for thinking Zanguebar is not *low*²³⁴; whether Monsia is so, no means of information have yet occurred²³⁵, and as to the crocodiles which do no harm, I should have supposed them to be the very large lizards not unfrequent in these latitudes, if I had not observed that the journal, when treating of Zocotora, mentions both crocodiles and very large lizards which the natives eat²³⁶. Crocodiles will hardly be found in islands which cannot have rivers of any great extent or depth.

After these deductions, there is every reason to conclude, that the Menūthias of the Periplūs is fixed indubitably at one of these two

²³² Barbosa notices this circumstance at the Zanguebar islands.

²³³ Περὶ τὰ σφαρά τῶν τετράχων.

²³⁴ When Duarte de Lemos invaded Zanguebar in 1510, the natives fled to the mountains. Faria, vol. i. p. 158. But, perhaps, if *low* on the coast, the island may still be called *low*.

²³⁵ By referring to the maps for the form of Monsia, it appears both in Ressendè and the modern charts like a semicircle or horse shoe, enclosing a bay on the western side, resembling those islands in the South Seas which Cooke describes as a reef rearing its summit above the sea. From this form I conclude it to be

low, which is one of the characters of Menūthias in the Periplūs. But I have no positive authority to depend on. Ressendè says it is the largest island of the three, and twenty-five leagues in length. MS. in the Brit. Museum, p. 103. et seqq.

²³⁶ See Peripl. p. 17. Σάυρας ὑπερμεγάθει. But Herodotus says the Ionians called [σάυρα] lizards by the name of crocodiles, lib. ii. Salmas p. 873. See also Laval's Voyage. Harris, vol. i. p. 703. At St. Augustin's bay in Madagascar, he says, the place was covered with an infinity of large lizards which *burr* no one.

Islands, the distance from the main is such as to suit no other upon the coast; for all the modern accounts concur in giving it at eight leagues, which are geographical, and which, compared with thirty Roman miles²¹⁷, approach too nearly to admit of a dispute. This is a point which has employed so much pains to settle, because the conclusion of the journal, and the limit of discovery, depend upon it; for, if we are right in Menuthias we cannot be mistaken in Rhapta. The distance from Monfia to Quiloa is as nearly an hundred miles as can be measured, and two days course of the journal is an hundred miles likewise; but we are no otherwise determined to Quiloa than as a known place, and from the supposition that the convenience of the spot might have attracted the natives or the Arabs, to fix a city here in the early ages as well as the later. The journal calls it the last harbour of Azania, and the termination of discovery. The modern Ajan is bounded at Cape Baxos, or as others slate, at the Obii, and the coast from thence to Cape Corrientes, comprehending the modern Quiloa, is styled Zanguebar; it is this coast which Marco Polo calls the island of Zanguebar, to which he gives an extent of two thousand miles, and in which he is not more mislaken than Ptolemy in his Menuthias, or in the inclination he gives this continent towards the east. The Periplats fixes its own limit without monsters, prodigies, or anthropophagi; a circumstance this, above all others, which gives reason to suppose that the author visited it himself²¹⁸; for the marvellous usually commences where knowledge ends, and this author indulges

²¹⁷ Sixty geographical miles are equal to ²¹⁸ Ubi desinit cognitio, ibi fingendi incipit
seventy-five Roman. Castaneda say., ten licentia. Vof. ad Melam, p. 325.
le. gues, p. 67.

the same passion as other writers, when he advances beyond the boundary of his own knowledge in the east; but of this more in its proper place. It is our present business to consider the site assumed for Rhapta at Quiloa, with the several circumstances that attend it.

The Periplûs always employs the title of Rhapta in the plural, and notices it only as it is a mart or harbour; but Ptolemy has a river Rhaptum on which Rhapta stands, and a promontory Rhaptum more than a degree and a half farther to the south. It must be observed, that this is very much in harmony with the actual site of Quiloa, which is on an island in a bay at the mouth of the river Goavo²³⁹, with Cape Delgado at the distance of somewhat more than a degree to the south. D'Anville has assumed Delgado for the Praesum of Ptolemy, in which I should not so confidently say that he is mistaken, if I had not proved that he has totally neglected the Menûthias of the Periplûs²⁴⁰, the very point upon which all our positions in the neighbourhood depend. But if the Rhapta of Ptolemy and the Periplûs are the same, of which there is no doubt, then the circumstances of Ptolemy apply to Quiloa, and to no other place upon the coast. In this opinion I am not singular; for Vossius²⁴¹, as he agrees with me in mak-

²³⁹ See the Voyage of Thomas Lopez, in Ramulio, vol. i. p. 134. Fia. Quilloa nuova e la vecchia e uno fiumo. A proof of more establishments than one in this neighbourhood.

²⁴⁰ D'Anville supposes the Menûthias of Ptolemy to be Zanguebar. But he does not take into his calculation the site of that island, or the necessity there is for Rhapta being to the south of it.

²⁴¹ Menûthias illa est insula qua nunc Zanguebar appellatur, huic enim omnia convenient quæ veteres de Menûthiade scribunt, non insulae S. Laurentii, quæ plane ignota fuit Græcis ac Romanis, ut plenius alias ostendamus, Raptum vero promontorium est illud quod Quiloa vocatur. Vossius ap. Cellarium. It will be shewn hereafter in what sense Madagascar was unknown to the Greeks and Romans. See Cellarius, lib. iv. c. 8. p. 163.

•ing Menūthias Zanguebar, unites also in allotting Rhapta to Quiloa.

P R A S U M.

XXI. It is now to be observed, that Ptolemy ²⁴² in going down the coast of Africa, as he has the same names with the Periplūs ²⁴¹, so has he the same termination at Rhaptum; for his Praſum and *his* Menūthias are thrown to the conclusion of his account of Africa, and do not appear to be collected from any regular journal like this before us; but to be founded upon the report of some voyagers who had advanced farther south, in the intermediate time which had elapsed between the date of the Periplūs and that of his own publication. But if it follows from this that the Periplūs is prior to Ptolemy, so is there great reason to believe, that if he did not follow this journal as low as it went, it was one nearly of the same age. The hesitation with which he speaks about all below Rhapta proves that he had no regular data to proceed upon, and however he rebukes Marīnus for error in his calculations, which, if adhered to, would have compelled him to carry Praſum to latitude thirty-four degrees south ²⁴³, he himself has a method by no means more efficacious. Marīnus, it seems, was upon his guard, and had reduced this excess to $23^{\circ} 30' 0''$ south, or the tropick of Capricorn; but Ptolemy objects to this, as still too distant, and reduces Praſum to latitude 15° south, *because*, says he, the people there are black, and the

²⁴² Africa, cap. vii. table iv.

lib. i. c. 9. The whole of Marinus's error is

²⁴³ See Table, p. 135.

imputed to calculating distances by the day's

²⁴⁴ It is a remarkable circumstance that this should be nearly the latitude of the Cape of Good Hope, latitude $35^{\circ} 30' 0''$. See Ptol.

course of a ship; and the chapter that contains this charge is highly curious, and worth consulting.

country produces the elephant and the rhinoceros, circumstances, which occur in latitude 15° north in Ethiopia, and consequently ought to occur again as many degrees south of the equator. This method of fixing a latitude is by no means satisfactory to Ramusio; for he tells us he was acquainted with a Portuguese pilot who was well read in Ptolemy²⁴⁵, and who objected very acutely, that if this ground were admitted, the inhabitants of Spain ought to be of the same colour with the Hottentots; for the straits of Gibraltar are nearly in the same latitude north as the Cape of Good Hope south. Without insisting upon this, it is evident that Ptolemy had no data from the journals to proceed on. But when he places Rhaptum in latitude $8^{\circ} 25' 0''$ south²⁴⁶, and Praſum in $15^{\circ} 30' 0''$ south²⁴⁷, he makes but one step of seven degrees, without a feature of the coast, or a circumstance intervening, which might enable us to judge whether the voyage had ever been performed or not; but here we find a nation of Ethiopians or Negro Anthropophagi directly.

M E N O U T H I A S, of Ptolemy.

XXII. It is opposite to this Praſum, but towards the north east²⁴⁸, that Ptolemy has placed his Menūthias, and at the distance of five degrees from the continent; for his Praſum is in longitude 80° , and his Menūthias in longitude 85° . His latitude of Praſum is $15^{\circ} 30' 0''$ south²⁴⁹,

²⁴⁵ As probably all the Portuguese pilots were in that age.

²⁴⁶ Latin text $8^{\circ} 36' 0''$.

²⁴⁷ Latin text $15^{\circ} 0' 0'$.

²⁴⁸ Ατρί Σηγενίς ανατολικῶν.

²⁴⁹ Latin text 12° . In the Voyage of Nearchus I had taken the longitudes and lati-

tudes from the Latin text, from a supposition that it was more correct than the Greek, and of equal authority; for it is not a translation, but supposed to be taken from an older and better Greek copy. A learned friend corrected some of my errors by referring to the Greek, and advised me to consult it more.

his latitude of Menûthias is $12^{\circ} 30' 0''$. It is from this latitude of 15° south, that the early Portuguese universally assume Mosambique for Prasum ; and if it were so, the Menûthias, five degrees to the east, can be nothing but Madagascar. Now it is not necessary to assert that either of these assumptions is true ; but, true or false, it is evident that the Menûthias of Ptolemy is different from that of the Periplûs. The one is opposite to Prasum, between 12° and 15° south ; the other is north of Rhaptum, and is in 9° south. The one is five degrees, the other is only thirty miles from the continent. Where Prasum is to be placed is an object worthy of inquiry, if there were data sufficient to determine it, as it is the final limit of ancient discovery to the south. I can point out no fitter position for it than Mosambique ; and if the Greeks did reach that port, they must probably have heard of the great island. The name of Menûthias was possibly assigned to it, as the name of the last island known, like Thulè in the north, or Cernè on the south, for a Cernè is found as the limit of African knowledge both on the western and eastern side of the continent. Hanno, or at least those who followed him, finished their voyage at a Cernè²⁵⁰; and Pliny, as well as Dionysius, finds another in the Indian Ocean. One of the first names by which Madagascar was known in Europe was the Island of the Moon, possibly an Arabian interpretation of Menûthias²⁵¹; but Marco Polo calls it Madaster, an appellation

²⁵⁰ Hanno went farther ; but in the time of Scylax Cernè was the limit. See Mr. Gof-felin's *Recherches*, tom. i. on this subject, to whose opinion I do not subscribe.

²⁵¹ It is *Md*, not *Mn*, or else I should consider this as certain. The Island of the Moon is a term sent to Europe by Covilham, in his letter to John II. king of Portugal. He says

this was the name by which the natives called it. This as attributed to the natives, may be doubted; but it is certainly the term used by the Arabs, as appears from Al Edrissi. Madaster, the name given by M. Polo, is more likely to be the native appellation. He is the first author who conveyed this name to Europe.

which it received from the navigators of his age, who where apparently Malays rather than Chinese; and to that language we should look for the etymology of the term.

XXIII. LET us pause at this boundary of ancient discovery, and examine briefly the opinions of mankind upon the subject. To commence with our author, nothing can be more guarded or unassuming than his language. The ocean, he says, beyond Rhapta, as yet undiscovered, sweeps round with a turn to the west; for as it washes the shores of Ethiopia, Libya, and Africa in their inclination to the south west, it joins at last with the Hesperian or Atlantic Ocean. This notion is consistent with the general sentiments of the ancients on this subject; and a variety of authors, from Herodotus to Pliny, not only suppose the communication of the two oceans, but the actual performance of the voyage. If credit were due to any, Herodotus has the fairest pretensions²⁵²; he has certainly no intention to deceive, but was deceived himself by the vanity of a nation who set no narrower bounds to their geography than their chronology; whose kings were gods, and whose gods were monsters. The natural propensity of mankind to assert the actual performance of all that is deemed possible to be performed, is not confined to Egyptians, Greeks, or Romans. The problem of a north east or north west passage to the Southern Ocean has been exploded only within these ten years; but while it was thought practicable, the pretenders to the performance of it were as bold in their assertions as the Egyptians of Herodotus.

²⁵² Haud alio fidei prouiere lapsu quam ubi falsæ rei gravis autor exigit. PLINY, lib. v. p. 92.

• As the Aragonauts sailed from the Mediterranean by the Palus Meotis²⁵³, and the Tanais²⁵⁴ into the Hyperborean Ocean; or as others are said to have come from India north about by Tchutskoi²⁵⁵, and through the Wolga into the Caspian Sea and Hyrcania. So in a more recent age have we an history of a ship called the Eternal Father²⁵⁶, commanded by Captain David Melguer, a Portuguese, who in the year 1660 ran north from Japan to latitude 84°, and then shaped his course between Spitsbergen and Greenland, by the west of Scotland and Ireland, till he reached Oporto. We have a Captain Vannout, a Dutchman, who affirms that he passed through Hudson's straits into the South Sea. Another Dutchman who sailed in an open sea under the North Pole, and a John de Fuca who sailed from the South Sea into Hudson's Bay. All these accounts have been reported and believed in their several ages, convicted as they now are of falsehood or impossibility, and traced, as they may be, to error and amplification. To this spirit of vanity it is doubtless that we may refer the Persian Fable of the voyage of Scylax; the Egyptian boast of the circumnavigation of Africa; the Grecian vanity concerning the same achievement by²⁵⁷ Eudoxus and Magus²⁵⁸; and the ignorance of Pliny in carrying Hanno from

²⁵³ Pliny did not quite think this impossible, set in their true light, may consult Strabo, lib. ii. c. 67.

²⁵⁴ The Sea of Alosph and the Don.

²⁵⁵ Strabo, xi. p. 518. "Ον δι θύεται, Παρθενάνης ἔγειται. See Pliny, lib. ii. c. 67.

²⁵⁶ Perouse's Voyage, vol. ii. p. 193. Eng. cd. octavo.

²⁵⁷ Those who wish to see the mendacity of Eudoxus, and the credulity of Posidonius

p. 101.

²⁵⁸ I am not certain whether Magus be a proper name or not, but he is one of the pretenders to this circumnavigation, mentioned by Strabo from Posidonius, lib. i. p. 32. sent by Gelo of Syracuse, and considered as an impostor by both.

Carthage to the Red Sea, notwithstanding his own journal was extant, which shews that he never passed the equator²⁵⁹.

Nothing is more easy than to affirm the accomplishment of these great attempts, where an author clogs himself with neither circumstances or particulars; but whenever we obtain these, as we do in the journal of Nearchus or the Periplus, we find indeed that the ancients performed great things with slender means; but we see plainly also what they could not do. We see, with such vessels as they had, they could neither have got round the Cape of Good Hope, by adhering to the coast, where the sea and the currents must have been insupportable, nor could they have avoided these by standing out to sea, as they had neither the means nor the knowledge to regain the shore if they had lost sight of it for a single week. It does not appear in the whole history of ancient navigation, that any voyage was performed either in the Mediterranean or on the ocean by any other means than coasting, except the voyages from Arabia and Africa to India, and back again by the Monsoons. It does not appear that there was any sort of embarkation known in the world which was fit to encounter the mountainous billows of the stormy Cape²⁶⁰. History speaks of no vessels fit for the ocean but those which

²⁵⁹ Campomanes places the Gorillas at St. Thomas under the equator, but probably without sufficient authority.

²⁶⁰ The faire report which was made to M. Polo, concerning the violence of the sea beyond Cap^r Corrientes, is to be found in almost all the Oriental writers. In the following quotation we have the evidence of two. *De fluctibus hujis maris res proflas stupenda narrantur. Inquit Al.Sherif Al Edrissi ibi fluctus*

multiplex assurgit instar totidem montium reciprocaterum, qui fluctus nequaquam frangitur; coeque naves deferuntur ad insulam Kamabalah, quæ in praedicto mari sita ad Al Zang [Zanguebar] pertinet, incolæ sunt M. Sceni. Vnde feda, in versione Gagnieri. MS. in Bodleiana Bibl.

We here learn that there were Arabs, Mahomedans on the coast of Zanguebar, that there was a trade thither from Arabia or the Red Sea, and that the navigation beyond was

which Cæsar describes on the coast of Bretagny; and if the Phenicians came to our island for tin, assuredly it was a summer voyage. The vessels of the Mediterranean were unfit for this service, not so much from their size as their built; and if it is observed that Solomon and the Phenicians traded in the Red Sea, and down the coast of Africa, perhaps as low as Sofala, it must be conceded, also, that vessels built at Ezion Geber could not be large, and that the danger of the voyage, as far as they proceeded, was attended with a terror, that perhaps nothing but the Phenician thirst of gain could have surmounted. This terror Bruce has noticed with much acuteness. The prison, the straits of burial, the port of death, and the gate of affliction, he remarks, are names given to the marts in the course of this navigation; and if such was the alarm upon the mind of the seamen, when they visited this tract in the favourable season of the monsoon, what must it have been if they had attempted to pass Cape Corrientes²⁶¹, and had launched at once into the ocean which surrounds the extremity of Africa. Cape Corrientes (so called from the violent currents formed by the pressure of the waters through the narrow channel between Madagascar and the main²⁶²,) was the boundary of Arabian navigation when Gama first came upon the

unattempted on account of the mountainous sea. See Al Edrissi, p. 28, et seq. who mentions beyond Sofala, Tehna where there is a hollow mountain, whence the waters rush with a tremendous roar, and a magnetick rock which draws the nails out of ships. Some other places to the south are mentioned, but with great obscurity, as, Saion, Daudema, Gafta, Dagutta, and Ouac-Ouac, the termination of all knowledge on the coast of Africa, and indeed of all the geographical knowledge

of the Arabs, p. 34. Such is the account of Al Edrissi, who wrote anno 548, Hegire, or 1153, about a century before M. Polo, and apparently about 500 years after the decline of the Greek and Roman commerce from Egypt.

²⁶¹ Facile homines abitare solent ab iis locis unde vel nullus vel difficilis sit regressus. Vossius ad McL. p. 595.

²⁶² Marmol describes not only the currents, but islands, shoals, and the most violent winds that are known. Vol. iii. p. 106.

coast ; whether the Phenicians, Egyptians, Greeks, or Romans ever reached so far may well be doubted, if they did, the Praesum of Marínus and Ptolemy may as properly be placed there as at Mosambique, but that farther they did not go is certain²⁶³. The Arabs knew the coast earlier, later, and longer than all of them united ; they were settled here while the others were transient visitors, and they had the opportunity of observing the seasons, winds, and currents ; and what they did not dare attempt, no nation, unless possessed of superior skill, power, or resources, can be supposed to have accomplished.

XXIV. BUT from argument let us come to facts, and bold as the presumption may appear, it is not too bold to assert, that there is no evidence of a farther progress to the south, on the western coast of Africa, than that of Hanno, nor on the eastern, than that of the Periplûs. In asserting this, if I detract from the authority of Heródotus, Diodôrus, Ptolemy, Juba, and Pliny, it is a detraction consistent with the most perfect veneration of those great and illustrious authors, for they have all followed the reports of others, while the authors of the Periplûs and Hanno speak from their own experience. It is from reports of others that we hear of a Cernè, and a Southern Horn, on both sides of this vast continent. These names were, in the respective ages, the ne plus ultra of knowledge on both sides ; and whoever sailed, either from the Red Sea; or the Mediterranean, arrived at these points, as Columbus arrived at the *Indies* by taking a course directly opposite to Gama. The

²⁶³ Rien n'étoit si peu avéré chez les anciens, comme on en juge par Ptolemée, que le récit qu' on faisoit de quelques navigations qui avoient tourné le continent de l'Afrique par le Midi. D'Anville, Geog. anci. tom. iii. p. 68.

Southern Horn of Ptolemy, on the eastern coast, is in latitude $4^{\circ} 50' 0''$ north, and the extreme point of Africa²⁶⁴, is nearly in 35° south, making more than thirty-nine degrees difference; the Southern Horn of Hanno, on the western coast, is in latitude 7° north, making two and forty degrees from the same extremity; but if we take both together, reckoning eighty-one degrees from one Southern Horn to the other, this is a space that Pliny reduces, as it were to a point, and considers the junction of the Atlantick Ocean, as taking place almost instantly; Juba takes a much bolder flight, and reckons the commencement of the Atlantick Ocean from the Bay of Mosylon, annihilating by this method, if it were possible, the immense triangle of this vast continent²⁶⁵, and bringing his own Mauritania almost in contact with Arabia. The particular attention of all who are curious on this subject is requested to this point, for it is upon conceptions equally erroneous as this, that too many of the ancients supposed the circumnavigation of Africa as possible as the doubling of Málea or Lilybēum. And this supposition of the possibility produced the belief of the performance. Pliny is self-evidently chargeable with this misconception, and Heródotus had probably no means of information by which he could form a judgment of the extent of Africa to the south.

It is on this ground above all others that we may assert, that the author of the *Periplūs* visited Rhapta in person; he had not heard of Prasum, a proof that the account of it is posterior to his age; he takes no notice of the circumnavigation ever having been accomplished, a proof that he knew nothing of Heródotus, or did not

²⁶⁴ Cape Agulhas.

Variorum edition of Pomp. Mela, by Js. Gronovius.

²⁶⁵ By consulting the map inserted in the *Novius*, it will be seen that this is a fact.

believe his report ; and he says nothing of Cernè, which is a proof that the mistake attending it, commenced from the Mediterranean and not from the Red Sea. That the general tendency of the coast was south west he saw as far as he went, and that it continued so, he might collect from the natives or the Arabs, or he might conclude the union of this sea with the Atlantick, from considering that converging lines must meet. But whatever source of intelligence he had, that he should mix nothing marvellous or extravagant with the termination, is a merit that few geographers in the ancient world can boast.

The facility with which Pliny²⁶⁶ carries his navigators round the world is rather magical than false ; he annihilates space, and sinks continents under the sea. He supposes that the Macedonians in the time of Seleucus and Antiochus, sailed from India into the Caspian Sea, and that the whole Hyperborean Ocean was all but explored²⁶⁷ quite round to the north of Europe. The circumnavigation of Africa is effected with equal celerity ; for this was accomplished not only by Hanno²⁶⁸ from Gades to Arabia, and by Eudoxus from Arabia to Gades ; but long before Eudoxus, Cælius Antipater had seen a merchant who sailed from Gades to Ethiopia. Nothing can be so unfortunate as these assertions ; for we have Hanno's²⁶⁹ own account to prove he never was within forty degrees of the cape, and Strabo's authority to prove, that Eudoxus never came from Egypt to Gades by the ocean, but by the Mediterranean ; and that full

²⁶⁶ Lib. ii. c. 67.

²⁶⁷ Parvoque brevius quam totus, hinc aut illine septentrio eremigatus. Ibid.

²⁶⁸ Pliny mentions the commentaries of Hanno, lib. v. c. 1. but almost as if he had not seen them, and certainly as if he did not be-

lieve them.

²⁶⁹ This is so readily admitted by common inquirers, that Mickle in his translation of the Lusiad says : " Though it is certain that Hanno doubled the Cape of Good Hope." p. 2.

as his mind was of attempting the voyage, the attempt if made would have commenced from Gades, if he had found protectors to patronize his undertaking ²²⁰. Of Celius Antipater we can say nothing, but if he did meet with a merchant who had sailed from Gades to Ethiopia, it was certainly not the Ethiopia south of Egypt, but that on the western coast of Africa. No merchant or merchantship could have performed a voyage which the greatest potentates must have attempted in vain. But the most extraordinary circumstance still remains, which is, that there is in this place no mention of Heródotus ²²¹, or the voyage he attributes to the Phenicians in the reign of Necho. This is the more remarkable as the account of Heródotus has strongly the semblance of truth, while Hanno and Eudoxus never pretended to the honour of the achievement themselves, nor was it ever imputed to them by any one who was acquainted with their real history, their situation, object, or designs.

It is with great reluctance that I controvert the testimony of Heródotus, for it is no light offence to question historical facts upon evidence of mere speculation. It must be confessed likewise, that the facts he gives us of this voyage, though few, are consistent. The shadow falling to the south, the delay of slopping to sow grain and reap an harvest, and the space of three years employed in the circumnavigation, joined with the simplicity of the narrative, are all points so strong and convincing, that if they are

²²⁰ Strabo, p. 101, 102, where he allows the voyage to India, but refuses all credit to Eudoxus. Euerges, [IId.] he says, could not want guides to India, there were many in Egypt: which is true, so far as single persons and single ships had reached India. This question will be examined in Book IV.

²²¹ Bruce is so full of an East India trade,

and so fond of placing it in so early age, that he sees no difficulty in his way; and he proceeded to much upon hypothesis that he neglected history. He knows so little of the voyage of Ivanelus, that he makes him sail along the coast of Ariana instead of Mekran, and come up the Gulph of Arabia instead of Persia. See vol. i. p. 456 and 470.

insisted upon by those who believe the possibility of effecting the passage by the ancients, no arguments to the contrary, however founded upon a different opinion, can leave the mind without a doubt upon the question. That different opinion I confess is mine, but I wish to state it with all deference to the Father of History, and with the profession that I am still open to conviction, whenever the weight of evidence shall preponderate against the reasons I have to offer.

I allow with Montesquieu, that the attempt commenced from the eastern side of the continent, presents a much greater facility of performance than a similar attempt from the west; for we now know that both the winds and currents are favourable for keeping near the coast from the Mosambique Channel to the Cape; and that after passing the Cape from the east²⁷², the current still holds to the northward up the western coast of Africa. But the prodigious sea, raised by the junction of the two oceans, almost perpetually, and at every season of the year, is such, that few of the fleets of Portugal, in their early attempts, passed without loss; and the danger is now avoided only by standing to the south²⁷³. The latter means of safety could not have been adopted by the Phenicians, they could not stand out to sea; and if they adhered to the coast, by all that we can now judge from the construction of ancient vessels, shipwreck must have been inevitable.

But to omit these considerations for the present, let us observe, in the first place, that the actual performance of this voyage stands upon a single testimony, and of all the circumnavigations affirmed,

²⁷² See Forrest on the monsoons, p. 10. 13. fallen in with the Ice Islands so graphically

²⁷³ In attempting which, several ships have described by the illustrious Cook.

this is the only one which will bear an argument. If it took place in the reign of Necho, Heródotus lived an hundred and sixty years after the fact²⁷⁴, and received the account from the Egyptians. That Heródotus did receive the account, must be indubitably admitted. His general veracity is a sufficient voucher. But that the Egyptians deceived him is an imputation which he does not scruple to instance in some other particulars, and of which we have the most undoubted evidence at this day. If we take the date of Necho's reign in 604, A. C.²⁷⁵, and allow that he was a sovereign attached to commerce, (as appears by his attempt to make a canal from the Nile to the Red Sea,) it will be readily granted that he must be acquainted with the navigation of that sea, and the commerce carried on there, and on the coast of Africa beyond the straits by his own subjects, by the Arabians or the Tyrians. The Egyptians had probably the least share in this, but the trade itself is to all appearance as old as Thebes, and the cause of its splendour and aggrandizement. That it was prosecuted by Solomon²⁷⁶, Hiram, and Jehosaphat we know historically; and that it was enjoyed in all ages by the Arabians in some form or other, there is every reason to believe from the commodities found in Egypt, Palestine, and Europe. These causes, and the testimony which Agatharchides bears, that the gold mines on the coast of the Red Sea were worked by the native kings of Egypt, prove that Necho might wish to extend his knowledge down the coast of Africa to its termination, and that he might consequently send a Phenician fleet to the southward for that

²⁷⁴ The voyage ordered by Necho is placed by Blair about ante Christ.

Heródotus read his history

604

445

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159

²⁷⁵ His reign begins in 616, and ends in 601. Blair.

²⁷⁶ Solomon died in 980, A. C. Jehosaphat in 889. Necho is near 300 years later.

purpose.

purpose. But that they executed their commission is not quite so easy to believe. Had this fleet no difficulties to encounter, because we read of none but the want of provisions? Can we suppose the Phenicians so superior to the Greeks in the art of navigation, as to have no dread of passing the greatest promontory in the world, when Nearchus and his officers shuddered at Muffendor, and dare not attempt Ras-el-had? Can we believe that Phenicians who had never crossed the Indian Ocean were bolder mariners than the Arabians, who trusted themselves to the monsoons? and yet the Arabians never dared to try the Mosambique current, during their neighbourhood to it for fourteen hundred years, while these Phenicians launched into it at first sight? To them the terrors of the stormy cape were no barrier, and the promontories on the western coast of the vast continent no obstacle. Were all these which the Portuguese surmounted only by repeated attempts, and by a persevering spirit exerted for almost an hundred years, to be passed by Phenicians on their first expedition, and in the course of a few months? Raise them as we please above Greeks, Romans, and Arabians in science, they were doubtless inferior in courage to them all. And whatever science we allot them, the smallest bark could have been conducted by the knowledge of a Portuguese pilot in greater safety, than the largest vessel ever fitted out of Egypt. Some admirers of the ancients, not content with supposing the execution of such a voyage, are willing to give them the means, by furnishing them with the compass, and other nautical instruments; these, it is said, were found in the possession of the Arabians, at the time the Portuguese first came into the Indian Ocean, and that they were afterwards met with in India and China. The fact is true, but

this was in the latter end of the fifteenth century, and the compass is said to have been known in Europe early in the thirteenth²⁷⁷; it had therefore passed from Italy into Egypt, and from Egypt to the Red Sea. But this argument, if it could be supported, would effectually contradict the hypothesis it is brought to support; for it would prove, that the Arabians of Mosambique, who really possessed these instruments, had never been enabled by them, nor ever dared to pass southward of Corrientes in their neighbourhood, while the Phenicians had actually circumnavigated the whole continent. Now, if the Phenicians had not the compass, how could they perform what was with difficulty performed by it? If they had it, how happened they to perform so much more by it in an early age than the Arabians in a later? But this question has been set at rest by Niebuhr, Mickle, and sir William Jones, who shew that the Arabian²⁷⁸, Indian, and Chinese compass is formed from that of Europe.

But let us now examine the text of Heródotus. * The narrative of this voyage is introduced in a passage where he is giving the limits and extent of the three continents, and here he says, that Neco proved Africa to be surrounded by the ocean from the completion of this voyage. One expects, however, to hear of the officer who commanded; it was at least as great an exploit as any which the fabulous navigators had achieved. Sesonchosis, the Oriental Bac-

²⁷⁷ Arbuthnot, p. 280. from Fauchet and Guyot de Provence.

²⁷⁸: The Arabick name for the compass is Buffola, evidently Italian. Concerning the Chinese instrument there is some obscurity; but it was so mean a tool that it is hardly worth discussing. The probability is, that

the Malays had it from the Arabs, and the Chinese from the Malays. But the Chinese themselves claim the invention 1120 years before the Christian era; and from China some say it was brought by Marco Polo, but he does not mention it himself, and it is therefore most probably a fiction.

chus, and Hercules, whatever might be the extent of their victories, peregrinations or voyages, fell far short of this, and they were immortalised; while among the Greeks, Jason, who sailed little more than seven hundred miles, was himself worshipped as a hero, and had his ship translated to the sphere. How happened it then that the greatest discovery which the world admits, should confer no honour on the discoverer? The name of Sataspes still lives in the same page of Heródotus, whom Xerxes put to death because he attempted the same circumnavigation in vain, from the straits of Gades; and the following page celebrates Scylax of Caryanda who passed from the Indus into the Gulph of Arabia, to the point from whence the Phenicians had commenced their expedition. I have as little faith in the voyage of Scylax as in that of the Phenicians; but it is unjust that Darius should suffer the name of the inferior to survive, while Neco should totally suppress the fame of the superior. The great argument against both is the total failure of all consequences whatsoever, the total want of all collateral evidence, and the total silence of all other historians but those who have copied from Heródotus. And in his account the narrative closes with a sentence, which if it were not otherwise interpreted by his most excellent and learned editor, I should consider as throwing a tint of suspicion over the whole ²⁷⁹.

The sentence in one view seems to intimate that the Carthaginians had circumnavigated Africa as well as the Phenicians; and if that be its

²⁷⁹ The passage is, Μετὰ δὲ Καρχηδόνοι οὐσὶ ἀλεύοντες ἐπὶ Σατάσπης γέ τι Τιάσπιος· which Pauw reads ἀλεύοντες, and which Wesseling calls an hariolation, but adds, Carthaginenses enim similibus defunctos navigationibus, tentasse oras

Africæ Atlantico mari asperfas, de Sataspæ nihil eos novisse. *Qua docti viri conjectura habet, quo se commendet*, lib. iv. 298. But he renders it otherwise himself, and very harshly: Larcher follows Wesseling.

real import, it can only allude to the voyage of Hanno²⁸⁰, which might have been deemed a circumnavigation in the age of Heródotus as readily as in the age of Pliny; and if so, it would invalidate the Phenician account as much as the Carthaginian; for if the Carthaginian voyage were false, as we know it is, the Phenician could hardly be true.

This argument, indeed, is not to be insisted on, nor the oblivion to which the name of the commander is consigned, but the difficulties of the voyage itself, the want of means to surmount them, the failure of consequences, and the silence of other historians, are objections not to be set aside without stronger evidence on the other side than has yet been produced.

But as it is not in our power to prove a negative, let us now examine the positive testimony of other authors in opposition to that of Heródotus. The author of the *Periplùs* says directly, that the ocean never was explored on the eastern side to the point of Africa. Hanno gives no intimation of any one having sailed farther than himself on the western side, and Scylax²⁸¹, who traces the Carthaginian commerce to Cernè, maintains not only that the sea to the southward was unexplored, but that it was not passable²⁸². The last author we shall adduce is Ptolemy, who certainly must have

²⁸⁰ Wesseling doubts very justly whether the voyage of Hanno is prior to Heródotus. I can affix no date to it, but am not satisfied with Campomanes's date. Olym. 93. Vossius thinks it prior to Homer. Strabo, p. 48. speaking of the African voyages of the Carthaginians says, Μιχεὺς τὸν Τεργικῶν νῆσον.

²⁸¹ The work which bears his name.

²⁸² Though this is not true, yet his men-

tion of the weeds which obstruct the passage is a circumstance which d'Anville has seized to prove the reality of these Carthaginian voyages to the south. Such weeds do occur, and do impede a ship's way, if she has not rather a brisk wind. If the latitude where these weeds commence can be determined, it may throw a new light on these voyages of the Carthaginians.

been acquainted with Heródotus, however ignorant we may suppose Hanno, Scylax, or the merchant of the *Periplús*. And Ptolemy is so far from believing the report of Neco or the Egyptians, that he not only supposes the voyage never performed, but declares it impossible; that is, he brings round the continent of Africa unbroken with a sweep to the east, till he makes it join the continent of Asia to the eastward of the Golden Chersonese.

False as this hypothesis may be, it is still a contradiction direct to Heródotus; for though it proves that he was himself ignorant of every thing beyond Prasum, it proves likewise that he believed all pretensions to a progress farther south fabulous; and that where all knowledge ceased he had a right to an hypothesis of his own as well as others. D'Anville supposes that Ptolemy assumed this system from the prevailing idea among the ancients, that there ought to be Antipodes in the south, correspondent to those of the northern hemisphere. Perhaps also a counterbalance of continents was as favourite a notion in the early ages as in modern. But however this error originated, the conclusion of d'Anville is remarkable²²³: "Nothing," says he, "was less ascertained among the ancients, if we may judge from Ptolemy, than the account of some voyages which were said to have been effected round the continent of Africa by the south." And parallel to this is the opinion of Vossius²²⁴: "Certain it is, whatever may be said to the contrary, that the ancients were so far from passing the Cape of Good Hope, that they never approached it." Both these opinions are likewise supported by Strabo²²⁵, who says, "that all who have attempted this navigation either from the Red Sea or the Straits of Gades, have returned"

²²³ Geog. Ancien. tom. iii. p. 68. ²²⁴ Vossius ad Melam, p. 303. ²²⁵ Lib. i. p. 32.

[without effecting their purpose]; and yet Strabo, while he asserts this, is as perfectly assured that Africa was circumnavigable, as Heródotus. In giving these opinions of Ptolemy, Strabo, and d'Anville, I feel myself supported by the greatest authorities ancient and modern; it is hoped, therefore, that the argument here assumed will not be thought presumptuous, more particularly as it derogates not so much from Heródotus, as from the information he received in Egypt.

P T O L E M Y.

XXV. It has been already shewn by the table [p. 135.] that there is a general correspondence between Ptolemy and the *Periplūs*, and their disagreement in particulars is not imputable to the authors themselves, but to the age they lived in. In that age the geographer did not navigate, and the navigator had no science²⁸⁶. The geographer reckoned by degrees without observation²⁸⁷; the navigator reckoned by his day's course. Modern navigators correct their dead reckoning by observation; but in the early ages science and practice had little connection: and yet so far from their being any charge of error or negligence in this, that it is exactly the reverse. We are not to condemn the mistakes of Ptolemy in longitude or latitude, but to revere the science, which applied the phenomena of the heavens to the measurement of the earth. The navigator of the present hour is conducted on principles first established by

²⁸⁶ Every seaman knows that his dead reckoning amounts to nothing till it is corrected by observation.

²⁸⁷ Ptolemy, lib. i. c. 9, tells us expressly,

that he had no accounts to be depended on, *δι τούτων λαθεῖσαι*, *τροπίας*, and therefore collected his latitudes from similar productions in the opposite hemispheres.

Ptolemy. The errors of his maps can no longer mislead, while his principle must be of the same duration as navigation itself. I call the principle Ptolemy's, because he fixed it and brought it into use. Thales and Anaxagoras knew that the world was a sphere. Eratosthenes drew the first parallel of latitude at Rhodes, and first measured a degree of a great circle upon the earth; Hipparchus taught that the measurement of the heavens was applicable to the earth. And Diocoros and Marinus are both said by Ptolemy to have delineated maps on principles similar to his own; though we may judge what these were, when he says that Marinus had the latitude of some places and the longitude of others, but scarcely one position where he could ascertain both. But if Ptolemy objects to the method of Marinus, we are compelled to object to the method Ptolemy used to correct it; for he says, that in going down the coast of Africa, Marinus reckoned by the days' course of the voyagers, and finding these carried Pra sum to 35° south, he shortened the estimate, and placed that promontory under the tropick of Capricorn. He then enters into a long argument to prove the insufficiency of this standard, and forms another for himself, by considering the productions of nature as similar, at equal distances, on both sides the equator; a standard certainly not less vague; and yet on this ground, and no other, he fixes Pra sum in latitude 15° south. Now there is a very remarkable coincidence attends the conclusion of both these geographers; for the Pra sum of Ptolemy is precisely at Mosambique, and that of Marinus at Cape Corrientes; and it is still more extraordinary that Mosambique should be the last¹⁸³ of the Arabian settlements in the following ages, and Corrientes the limit of their knowledge.

¹⁸³ There were Arabs lower down at Sofala, but Mosambique may well be styled the last of their colonies.

• From all the evidence I can collect, and all the circumstances I can combine, I find it impossible to ascertain the site of Praſum²⁸⁹; but I have no hesitation in carrying it farther to the south than d'Anville does, or in fixing Corrientes as the farthest possible boundary to all the knowledge of the ancients. The detail of Ptolemy goes to Rhaptum and no farther; so far he had journals, and the relation of navigators to conduct him; beyond that, the voyage did not in its regular course extend; and if single vessels had at any time been carried to Praſum, by the winds and currents, it was accidental. But it should seem that it was heard of from the natives, or the Arabs, rather than seen, as all circumstances and particulars end with Rhaptum; and the remainder consists of a single step to Praſum, that is, near seven degrees, without mention of a port, an anchorage, or a single feature of the coast.

One thing, however, is certain, that the name of Praſum is familiar to Marinus, who is prior to Ptolemy, and is not known to the author of the Periplūs. If, therefore, Ptolemy lived in the reign of Adrian, and we have an intervening writer between him and our author, we cannot err more than a very few years in assigning the date of the Periplūs to the latter end of the reign of Claudio, or the beginning of that of Nero. There is a Diodorus Samius mentioned in Ptolemy from Marinus, who notices the course held by vessels from the Indus to the coast of Cambay, and from Arabia to the coast of Africa²⁹⁰. He asserts that in the former voyage they

²⁸⁹ There are some coincidences so extraordinary, and some contradictions so strong, that the choice is wholly at a stand. Ptolemy condemns Marinus for making five thousand stadia, i. e. five hundred miles between Rhaptum and Praſum; and yet he himself makes it seven degrees, which is almost the same thing. But if they agree in this, their difference is

still irreconcilable; for Marinus's Praſum is in 23° south, and Ptolemy's in 15°. Marinus's line of coast tends directly to the south or south west, Ptolemy's to the east. Αντὶ Διατολῶν τε Ράπτην Ἀσπροπόλις, p. 115.

²⁹⁰ Ptolemy, lib. i. c. 9. Azania the coast below Cape Gardefan.

sailed with the Bull in the middle ²⁹¹ of the heavens, and the Pleiades on the middle ²⁹² of the main yard, in the latter that they sailed to the south, and the star Canopus, which is there called the Horse. I can find no mention of this Diodôrus Samius in any other author; but whoever he is, if the date of his work could be fixed, it would go farther to ascertain the progress of the ancients, the navigation of Hippalus, and the account of the Periplûs, than any discovery I have been able to make. I have reasoned only from the materials before me; and if future inquiry should develope Diodôrus, it is not without great anxiety that I must abide the issue of the discovery.

Another circumstance highly worthy of attention is the argument of Ptolemy ²⁹³, to invalidate the estimate of a day's course. The usual estimate he states at five hundred stadia for a day, and a thousand for a day and night; he then mentions, from Marinus, a Diógenes who was one of the traders to India, and who, upon his return, in his second voyage, after he had made Arômata ²⁹⁴, was caught by the north east wind, and carried down the coast for five and twenty days, till he reached the lakes from whence the Nile issues ²⁹⁵, that

²⁹¹ Μισθιστά.

²⁹² Κατὰ μίσθιον τὴν κερπίαν.

²⁹³ See lib. i. c. 9.

²⁹⁴ It may be proper to examine the sooner upon this question.

²⁹⁵ That there is a great lake inland from the coast of Ajan, is a report of which we find traces in almost all the accounts ancient or modern; but where to fix it, or what it is, seems by no means ascertained. D'Anville notices such a lake on his map of Africa, and conjectures that it may be the source of the Obii, which issues at Ampaça and Paté.

Ptolemy here makes it the origin of the Nile, and places it in 10° south *, and the Nubian geographer carries to 16° , which is the latitude of the Lake Maravi, while the source that Bruce visited is in 12° north. Two and twenty degrees is surely too great a difference to suppose between the head of the White and the Blue River: neither is it probable that any source of the Nile should be south of the mountains of Abyssinia, which Rennel now says are part of the great Belt that di-

* The lakes in Ptolemy are from 7° to 16° south. The sources of the Nile are in 13° south.

*that is, nearly to Rhaptum²⁴⁶; he then adds, that Marinus mentions one Theophilus who frequented the coast of Azânia, and who was carried by a south west wind from Rhapta to Arômata in twenty days. From these facts²⁴⁷ Ptolemy argues, that as five and twenty days are attributed to the shorter course, and twenty to the longer, there can be no stated measure of a day's course to be depended on. I must own that to my conception they prove exactly the contrary; for though a day's course is certainly indefinite, where winds are variable, we now know that both these voyagers must have been carried by the two opposite monsoons, and that Diógenes lost his passage by not arriving at Gardefan early enough to get into the Red Sea; consequently he was hurried down to the south, and could not get into port till he was somewhere about Patè or Melinda. The difference itself of twenty-five and twenty days is not so great as to insist upon with severity, and we must likewise add, that both voyages seem in consequence of surprize, and not the ordinary course of the navigation. Mariners do not now, and certainly could not formerly,

vides Africa, this indeed is not impossible, as the Indus and the Ganges both cut the great belt of Asia; but it is highly improbable, on account of the vast space between. Neither does it make Ptolemy consistent; for though d'Anville still preserves Ptolemy's sources of the White River in his map, and Rennell does not discard them. The lakes of those sources are placed in 6° north by d'Anville, and in a very different longitude from Ptolemy's, while this lake of Ptolemy's is in 10° south. And here d'Anville has a lake also, but of which he speaks with great uncertainty. See Ptol. lib. i. c. 9. But Ptolemy, in the 17th chapter, expressly states that this lake is not near the

coast but far inland. D'Anville's earliest notice of this lake, called Maravi, is in a map which he composed for Le Grande's translation of Lobo, in 1728.

²⁴⁶ Ptolemy says, the Promontory of Rhapta was a little to the south west.

²⁴⁷ The facts are so curious that I have great pleasure in stating them to the reader, and proposing them to the consideration of any English officer who may be accidentally brought on this coast. I must notice also that Diógenes and Theophilus are both Greek names; a leading proof that even under the Romans, this trade was chiefly in the hands of Egyptian Greeks.

reckon by an individual, but a general run; and when they are in the sweep of the trade winds or the monsoons, though the force of the wind is not perfectly or constantly equal, it is so generally subject to calculation, as to vary but a few days in very extensive passages. This sort of estimate all seamen have in such voyages, and on such coasts as they frequent. And those who know how nearly the computation of all seamen approaches to the truth, will certainly allow more precision in the accounts of Marínus and the Periplús before us, than Ptolemy is willing to concede. On this point we have a most remarkable coincidence to notice; for as Marínus states the passage of Diógenes from Arômata²⁹⁸ to the lakes at five and twenty days, the Periplús assigns exactly the same number from Opône²⁹⁹ to Rhaptum upon a distance as nearly equal as possible. The conclusion from this is incontrovertible; for it has already been shewn, that the courses of the journal agree with the actual extent of the coast, and if the passage of Diógenes agrees with the day's courses, it is impossible to admit the scepticism of Ptolemy.

But, from his rejection of the estimate, we may proceed to his contradiction of the facts; for in his seventeenth chapter he contends the whole account of Marínus³⁰⁰, and as far as we can collect, his account was in union with the Periplús. The reasons for admitting the statement of the Periplús are contained in the whole of the preceding pages. The reason for doubting Ptolemy is, that his account is not consistent with his own detail of the coast,

²⁹⁸ From Gardfan to Melinda or Patè.

²⁹⁹ From d'Affui to Quiloa.

³⁰⁰ I had once conceived an opinion that Marínus might be the true author of the Peri-

plús, from finding his great agreement with it, and that the objections which Ptolemy brings against Marínus in the seventeenth chapter apply very nearly to the Periplús. But I am convinced

*coast³⁰¹, nor consonant to the knowledge of it, which we have at present. He sets out with saying, that the merchants who trade between Arabia Felix and Arômata, Azânia, and Rhapta, give a different statement from that of Marînus. They mention that the course from Arômata to Rhapta is south west; but from Rhapta to Prafum south east. This indeed would hold good for a small bend of the coast, but upon the seven degrees which Ptolemy assigns to the interval is directly false; for the general inclination from Gardefan to the Cape of Good Hope is south west upon the whole; and this turn which he assumes to the south east, seems only to prepare it for the curve he gives it all round the Antarctic Ocean. He then adds, that the village Panôn is next to Arômata, and that Opône is six days from Panôn. If there be not a corruption of the text here, or a great error in our construction of it, this is in direct opposition to his own table as well as the Periplûs. For his table gives only five minutes difference between the two. He next mentions Zengisa, Mount Phalangis, and the bay called Apôcopa, which it requires two courses of twenty-four hours to pass. Then the Little Coast of three similar courses, and the Great Coast of five; then two more to Effina, one to Serâpion, and three more across a bay to Rhapta. Niki, he adds, lies at the commencement of this bay next to Serâpion. And last of all he notices a river called Rhaftum, with a city of the same name, the metropolis of Barbaria, with a vast bay which must be passed to reach Prafum, where the sea is very shoal³⁰², and round Prafum is the country of the Anthropophagi. Now the

convinced this opinion cannot be defended, for
Marinus was no navigator, but a geographer; and
Marinus knew or had heard of Prafum, which
the author of the Periplûs certainly had not.

³⁰¹ Page 111.

³⁰² So also says Marcian, Βαρχία Σάλασσα,
p. 8.

meaning of this language, if I understand it right, is, that at Rhaptum is the last settlement of the Arabs, and that Prafum is in the country of the Negroes, for so I interpret Anthropophagi. This is not expressed indeed, but is so perfectly consistent with the Periplùs that it can hardly be disputed.

The difference that there is between this detail of the coast and that of the Periplùs, will be best seen by consulting the table (p. 136.); but whatever it may be, it contributes more to establish that journal by its general concurrence, than it detracts from it by disagreement in particulars. It appears to me, whether from predilection to my author, I cannot say, that Ptolemy had a journal before him but a worse. I see the correspondence between the two, but more consistence in the Periplùs. I see likewise more circumstances in this, more characters, and more intelligence, which persuades me that it is written by one who performed the voyage, while Ptolemy relates after another. The reasoning, therefore, which he builds on this, to correct Marinus, appears of less weight; for we find all the distances of the Periplùs correspondent to the actual nature of the coast at present; and whatever failure there may be in the application of it to particulars, the leading characters, such as the Straits of Bab-el-Mandeb, Ras-Feel, Gardefan, Daffui, Cape Baxas, the Coast of Seven Rivers, and the Zanguebar Islands are so clear and manifest, that the outline may be considered as perfect, whatever error there may be in the filling up. To my own mind the evidence is complete; but every author who compiles from the labours of others, without visiting the countries of which he treats, must subject the speculations of the closet to the determination of navigators on the spot. To this law I submit my inquiries most chearfully, soliciting information.

information without fear of the result, and ready to stand corrected by every intelligent officer who will make this work the companion of his voyage. One farther observation is all that remains in this part of my discussion, which is, the peculiarity that *Prasum*, signifying Green, should point out a green cape for the termination of ancient knowledge on the eastern side of the vast continent of Africa, while another Green Cape (*Cape Verde*) should have been for many years the boundary of modern navigation on the western side. If I am not mistaken, *Cape Verde* has its name from its verdant appearance when first seen by the Portuguese; otherwise it might have been thought that those who first reached it had annihilated the great triangle like *Juba* and *Pliny*, and thought they had arrived at the Green Cape³⁰³ of the ancients. This will not appear an idle observation to those who are conversant with the ancient geographers, and who know that they found, as already noticed, a western Horn and *Cernè* on both sides the continent, and a *Thulè* from the Orkneys to the Pole. But there is another view in mentioning it, which is, that some future navigator, with this clue to direct him, may, when he is going up the *Mosambique* passage, still find some characteristick greenness, either in the colour of the sea, or on the continent, which may enable him to point out the *Prasum* of the ancients. This is a point I cannot ascertain to my own satisfaction, but it cannot be farther south than *Corrientes*, nor farther north than *Quiloa* or the *Zanguebar* Islands. English ships generally leave the coast before they are so far north, but accident may carry some

³⁰³ Πράσον signifies a Leek, but it is also used for a sea weed of the same colour, and may possibly allude to such weeds found in this sea,

curious observer to the spot, which he may recognize, by knowing previously where he is to search, and what he is to search for.

DISCOVERIES of the PORTUGUESE.

XXVI. WITH vessels of the most perfect construction to encounter all the dangers of the sea, with instruments of all kinds to ascertain the place of the vessel, with officers equal to every service, not only from their intrepidity but their skill, a voyage performed in three years from Europe to the Red Sea, round such a continent as Africa, for the first time, would have added no small degree of lustre even to the reputation of a Cook: and yet such a voyage is imputed to the Phenicians in an age when they had neither charts or instruments, when they had no vessels fit for a navigation beyond the Red Sea, or the limit of the monsoons. But to judge of the difficulty of such an undertaking for the first time, we cannot form our estimate upon better grounds, than by a brief recapitulation of the obstacles surmounted by the Portuguese, and by observing that the attainment of the same object cost them almost a century, which the Phenicians are said to have reached in the short space of three years.

Of the progress of this discovery it will be necessary to trace little more than the dates³⁰⁴. Prince Henry, fifth son of John the first, king of Portugal, took up his residence at Sagrez, near Cape Saint Vincent, about the year 1406. The history of his discoveries is familiar to every one, but, like the history of all others who are the

³⁰⁴ See Faria and Osorius in init. Barbosa and Alvarez, in Ramusio, Bruce, Mickle's Lusiad, and Castaneda.

favourites

favourites of mankind, it is not sufficient to give him his due merit, which is superlative, but it must be enhanced by hyperbole. It is not true that in his day there was no geography but in the poets³⁰⁵, that he is the inventor of the astrolabe³⁰⁶ and the compass, or the first that put these instruments into the hands of mariners : but he was bred a mathematician, and he procured the best charts and best instruments the age afforded. He improved upon or corrected every one of them, and he taught³⁰⁷ the application of them in the best manner to the commanders employed in his service.

This great man, with one object always in his mind, distracted by no other cares of the world, never married, never incontinent, was determined, by his regard to religion, to subvert the power of the Mahometans, and by the love of his country to acquire for her that trade which had enriched Venice and the maritime states of Italy. These were his views, and this was his merit. It was not accident but system that carried the fleets of Portugal to the East Indies, and Columbus to the West. When Henry first commenced his operations, Cape Nun, in latitude $28^{\circ} 40' 0''$, was the limit of European knowledge on the coast of Africa. This Cape is just beyond the boundary of Morocco, and the Portuguese knowledge of it was derived from their wars with the Moors of Barbary. Com-

³⁰⁵ Bruce and Mickle.

³⁰⁶ See on the Astrolabe, note infra.

³⁰⁷ I cannot help mentioning a circumstance which contributes much to our national honour. Pietro della Valle who sailed both in English and Portuguese ships in the East Indies about 1620, observes that the Portuguese masters and pilots made a mystery of their knowledge, whereas on board the Eng-

lish ships all the youths on board were summoned to take the observation at noon; their books and calculations were then likewise corrected. Purchas mentions this in some instructions given by the merchants to the commanders they employed; and here, perhaps, we may trace a cause why the science has always been increasing among the English, and declining among the Portuguese.

mencing the line of his discovery from hence, in 1418 two of his officers reached Cape Boyador, in latitude $26^{\circ} 30' 0''$. The same effort retarded to geography the Canaria of Pliny, or gave that name to the islands which retain it still, and lie between Nun and Boyador. Boyador, however, was not doubled till 1434. It was, says Faria, a labour of Hercules; and it was not till 1442 that the discovery was advanced to Rio-del-Ouro, under the tropick of Cancer. This name points to the acquisition of gold; and history mentions that the dust of that precious metal was here first offered as a ransom for some of the natives who had been taken prisoners. Upon the return of these vessels to Portugal¹⁰⁸ the sight of gold produced an emotion much more effectual than all the exhortations of Prince Henry had been able to excite; a company¹⁰⁹ was immediately formed at Lagos, and the progress of discovery was ensured whether Henry had lived or died. This is the primary date to which we may refer that turn for adventure which sprung up in Europe, which pervaded all the ardent spirits in every country for the two succeeding centuries; and which never ceased till it had united the four quarters of the globe in commercial intercourse. Henry had stood alone for almost forty years, and had he fallen before these few ounces of gold reached his country, the spirit of discovery might have perished with him, and his designs might have been condemned as the dreams of a visionary; but he lived till 1463, and in the years 1448 and 1449 had the satisfaction to see his discoveries extended

¹⁰⁸ Bruce observes, this must have come from the country farther south, vol. ii. p.

¹⁰⁹ It will appear hereafter that a John Diaz was one of the first partners of this Company, and from him several of the family

were employed in the future discoveries, till the time of Bartholomew Diaz, the first circumnavigator of Africa, in 1487. Thus was the connexion formed between the discovery of Rio-del-Ouro and the Cape of Good Hope.

to Cape Verde, (in latitude $14^{\circ} 45' 0''$), to the Cape Verde islands and the Açores. This cape was likewise doubled, and some progress is supposed to have been made as far south as to the equator, but Cape Verde may be considered as the limit of Henry's discoveries. He is deservedly³¹⁰ celebrated by all writers as the reviver of navigation, and the great founder of that commerce which has raised the maritime power of Europe above all the other nations in the world.

After the death of Henry his designs languished during the reign of Alonzo, but the spirit of adventure was not suppressed. In 1471 the discoveries extended to Cape Gonzales beyond the equator, and terminated with this reign at Cape Saint Catherine, in latitude $2^{\circ} 30' 0''$ south³¹¹. John the second succeeded to the throne in 1481; and revived the pursuits of Henry with all the ardour of their author. In 1484 his fleets reached Congo and penetrated to 22° south. It was in Benin that the first account of Abyssinia was received, and nearly about the same time John sent out Bartholomew Diaz with three ships, who first circumnavigated the extreme point of Africa, and dispatched Covilham in search of India by Egypt and the Red Sea. The date of Diaz's expedition is fixed in 1486, nearly eighty years after the commencement of Henry's plan, and the expedition of Covilham is assigned to 1487³¹². I have recapitulated these facts and dates not for the purpose of repeating a history known to every one, but that the reader may compare the difficulty of prosecuting this dis-

³¹⁰ Mickle xxxix. from Faria, vol. i. p. 21. failed in consequence of Covilham's intelligence, which is directly contrary to the testimony of Faria, Castaneda, Alvarez, and Mickle.
See his character, p. 18.

³¹¹ Faria, vol. i. p. 20, 21.

³¹² These dates are of consequence; because Bruce, vol. ii. p. 108. supposes Diaz to have When Covilham wrote he certainly did not know of Diaz's success.

covery by the Portuguese, with the facility attributed to the attempt of the Phenicians, in their three years' navigation.

But Covilham³¹³ is a name of such importance, his history so extraordinary, and his account so connected with the Periplùs, that to pass him in silence would be an unpardonable omission. John II. in the beginning of his reign had sent two friars, one of the order of St. Francis, and the other John of Lisbon, with a third who was a layman, into the East³¹⁴, in order to discover India by land. These travellers went, for want of the Arabick language, no farther than Jerusalem. In the year 1486 or 1487³¹⁵, he therefore sent John Pedreio de Covilham and Alonso de Payva on the same service; and, after them two Jews, Abraham of Beja and Joseph of Lamego. As nothing can shew the solicitude of the king more than these circumstances, so nothing can prove his penetration more than this choice of Covilham; he was a soldier, he had served in Africa, had been an ambassador to Morocco, and had acquired the Arabick language to perfection. In obedience to his sovereign he departed from Lisbon³¹⁶, and took the route of Barcelona and Naples, and thence by Rhodes and Alexandria to Cairo. He there joined a party of Mograbin³¹⁷ Mahometans, and went in their company to Tor, Suakein, and Aden. At Aden he embarked for Cananor on the coast of Malabar, and visited Ormuz, Goa, and Calicut. He saw

³¹³ Called de Covilham from the name of his birth place. Oforius always writes John Petreio. See vol. i. p. 147.

³¹⁴ Caftaneda, p. 2.

³¹⁵ I collect that Covilham entered Abyssinia in 1488 from Alvarez in Ramusio; for

Alvarez says he confessed him in 1521, thirty three years after he had entered the country.

³¹⁶ Alvarez in Ramusio, vol. i. p. 191. 237. et seq.

³¹⁷ Moors of Barbary, Western Arabs.

the pepper and ginger³¹⁸, he heard of cloves and cinnamon. After this he returned to the coast of Africa, touched at Zeila, and went down the coast as low as Sofala, the last residence of the Arabs, and the limit of their knowledge in that age, as it had been in the age of the Periplus. The Arabs of Covilham's age knew indeed that the sea was navigable to the south west, as their earlier countrymen did when the author of the Periplus was in the country, but they *knew not where it ended*. With this intelligence, and what he could collect of the Island of the Moon, or Madagascar, he returned by Zeila, Aden, and Tor to Cairo. At Cairo he met the two Jews, Abraham of Beja and Joseph of Lamego, by whom he sent an account of the intelligence he had collected to the king, and in the letter which contained it, he added,

“ That the ships which sailed down the coast of Guinea might
 “ be sure of reaching the termination of the continent, by persisting
 “ in a course to the south ; and that when they should arrive in the
 “ Eastern Ocean, their best direction must be to inquire for Sofala
 “ and the Island of the Moon.”

It is this letter above all other information which with equal justice and with equal honour assigns the theoretical discovery to Covilham as the practical to Diaz and Gama; for Diaz returned without hearing any thing of India³¹⁹, though he had passed the cape; and Gama did not sail till after the intelligence of Covilham had ratified the discovery of Diaz.

³¹⁸ What a testimony do their two words give of his veracity, and what a variety of connected circumstances do they suggest to those who know the country, the trade, and the designs of John ? Alvarez seems to write what Covilham dictated. Alvarez, p. 237.

³¹⁹ Castaueda, p. 2.

Covilham was not to receive the reward of his services ; one part, of his commission he had not executed, which was, to visit Abyssinia ; he returned, therefore, from Cairo to Ormuz, and from Ormuz once more to Aden, where he waited till he found the means of introduction into Abyssinia. Here he was received with kindness, but hence he was never to return ; for in Abyssinia he was found by Alvarez³²⁰ the almoner to the embassy of John de Lima, in 1525, who observes that the king had given him a wife and lands, and that he was beloved by the people as much as by the sovereign ; but that his return was for ever precluded. He solicited John de Lima, and John interceded with the king in vain. I dwell with a melancholy pleasure on the history of this man, (whom Alvarez describes still as a brave soldier and a devout Christian,) when I reflect upon what must have been his sentiments on hearing the success of his countrymen in consequence of the discovery to which he so essentially contributed. *They were sovereigns of the ocean from the Cape of Good Hope to the Straits of Malacca : he was still a prisoner in a country of Barbarians.*

There is a circumstance attached to the history of Covilham of great geographical importance, which is the map or chart committed to his charge by Emanuel, at that time prince³²¹ and afterwards king of Portugal, which was copied and composed by the licentiate Calzadilia, afterwards bishop of Viseo, a doctor Rodrigo, and a Jew named Moses, with great secrecy in the house of Peter

³²⁰ See the work of Alvarez in Ramusio, vol. i. ³²¹ Duca. See Castaneda, p. 1, 2, 3. Alvarez in Ramusio, vol. i. p. 236.

of Alcazova. This map³²² was put into Covilham's hands with orders to make his way, if possible, into Abyssinia, and discover whether there was a passage round the extremity of Africa, which the framers³²³ of the map asserted to be practicable, on the authority of some obscure information which they had collected.

Bruce asserts³²⁴ that Covilham sent home from Cairo a map which he had received from a Moor in India, in which the Cape, and all the cities round the coast were exactly represented. But whence Bruce draws this account I cannot discover; and if there was such a map among the Moors it must be a fiction, for none of them had ever passed Corrientes by sea; and cities there are none³²⁵ for

³²² I imagine it is the composition of this map which has induced Mickle to say, that the Astrolabe was invented by two Jews, Rodrigo and Joseph at Lisbon; and I have little doubt that the usage of the word Astrolabe deceived him, or the author from whom he copied. The primary meaning of Astrolabe was an armillary sphere. Ptolemy reduced this to a planisphere; and yet the name of Astrolabe continued till it became applied to maps like his in stereographic projection. The Sea Astrolabe is a different instrument, for taking the altitude of the sun, stars, &c. It is a ring with a moveable index. See Chambers's Dictionary, *in voce*. This last sort of Astrolabe is described in Chaucer's treatise on that subject, which bears date 1391; so that if Mickle means this instrument, it could be no invention of the Jewish doctor's. See Chaucer, Urry's edition, p. 440. and that he does mean it, I refer to his own words, Lusiad, p. 193. Note P. where he quotes di Barros, Dec. i. lib. iv. c. 2. I cannot refer to di Barros; but in Alvarez (Ra-

musio, vol. i. p. 236.) I find the circumstance of this map by Castaldia, with the name of Rodrigo and Moses the Jew, whom I suppose to be the Joseph of Mickle. Purchas, vol. ii. b. ii. p. 8. speaks with much more propriety; he says the Astrolabe was applied formerly only to astronomical purposes, but was accommodated to the use of mariners by Martin Bohemus, a scholar of Regiomontanus, at the suggestion of John king of Portugal.

³²³ Et dipassare un di loro nell' Ethiopia a vedere il paese del Prete Janui et se ne i suoi mari fuisse notitia alcuna che si posse passare ne mari, de ponente, perche li detti Dottori dicevano haverne trovata non so che memoria.

³²⁴ Vol. ii. p. 108. Castaeda, p. 3. says that Covilham set down the names of places in the chart he carried with him, *albeit ill written*.

³²⁵ " Howbeit there appeared unto them no townes within this land, by reason that along those coasts there are none situated." Castaeda, p. 8. " but further within there be townes and villages." .

almost.

almost twenty degrees from Corrientes to the Cape, or from the Cape for twenty degrees to the northward on the western coast.

That seditious maps of this sort might exist both in the Indies and Europe, among Mahometans¹²⁶ and Christians, is highly probable, for it was a prevailing notion in all ages, that Africa was circumnavigable. And it has been repeatedly noticed in this work, that on both coasts, when the voyagers reached the limit of discovery, the report of the place was always in favour of a passage. We may allow even more than this, and say, that the natives had gone¹²⁷ by land much farther to the south than the navigators by sea; and that their accounts were almost unanimous in maintaining the same assertion. The strongest evidence I have found of this is that which the Portuguese afterwards report of Benomotapa; a great nation when *they* arrived in Africa, and the remnant of a much greater, which had possessed cities of great extent and regular buildings; and from which it was said there were public roads running far to the west and quite down to the Cape¹²⁸. We are not to believe these reports, perhaps, in their full extent; but the ruins of great buildings seem authenticated; and the existence of gold and gold mines is universally asserted. Here is Bruce's Ophir¹²⁹,

¹²⁶ The communication between the Oriental and Atlantick Ocean seems to be intimated in Abulfeda, (p. 50. Gagnier's translation, MS. in the Bodleian,) but it is so obscure that I am not certain that I comprehend it even in the translation.

¹²⁷ This seems to appear from Al Edrissi, p. 28. et seq. where he mentions Sofala, and several other places beyond it with great obscurity.

¹²⁸ See Ed. Barbosa in Ramusio, vol. i. p. 288. et seq. Barbosa mentions such a road:

that it went far south may be very true; but hardly to the cape.

¹²⁹ Pere Dos Santos in Lobo's history of Abyssinia, finds a Fura or Afura inland from Sofala, and concludes it to be Ophir p. 261. Fr. ed. He finds also all that Solomon brought into Judca except peacocks; but his commentator observes that Thukkium, the Hebrew term, may be translated percoquets as well as peacocks. I leave the voyage to Ophir for the discussion of others, observing only that the circumstances attending it are in favour of Africa, though Gosselin confines it to Sabia.

the tradition of the queen of Sheba³³⁰, the coast of Sofala, and the great river of Cuama.

Such a nation as this, while in a flourishing state, we can suppose to have extended its communications far to the west and to the south, with roads both ways as far as their caravans could find purchasers to invite them. With this nation the Mahometans of Sofala and Mosambique must of necessity be connected ; and if they had a map or chart of the cape, from the information of this nation it must have been collected. It is the mention of cities in this map which alone makes us suspect that it was the product of their own imagination. Maps of this sort are supposed to have been framed as readily in Europe as in Asia. And one of these Mickle speaks of in the introduction to his translation of the Lusiad in the following terms :

“ Antony Galvan relates³³¹, that Francisco de Sousa Tavares told “ him, that Don Ferdinand told him, that in 1526 he found in the “ monastery of Acobaça a chart of Africa an hundred and twenty “ years old, which was said to be copied from one at Venice, which “ also was believed to have been copied from one of Marco Polo, “ which, according to Ramusio, marked the Cape of Good “ Hope.”

Mickle considers this as a mere report calculated to deprive prince Henry and the kings of Portugal of the honour of the discovery ; and its date of 1526, almost thirty years after the discovery had

³³⁰ This tradition might well extend to this country before the arrival of the Mahometans on the coast, from the early Arabs, and much more strongly from the Abyssinians, who in their better days do certainly appear to have

had conquests in Arabia, and connections with Egypt, and in the interior of Africa to the west and south.

³³¹ Introd. p. xxxiv.

actually taken place, affords full ground for the suspicion. But let us suppose that the depicted travels of Marco Polo, which adorned one of the churches at Venice³³², actually contained the Cape of Good Hope, or rather the extreme point of Africa, it proves nothing. It shews only that the prevailing notion of the circumnavigation prevailed at Venice, as it had done many centuries before in Greece and Rome, and that it was inserted into this chart from the imagination of the draftsman.

Marco Polo³³³ himself was too wise and too faithful a traveller to assert this. We have his work; and we find his language perfectly in harmony with that of Scylax and the Periplūs. “ Beyond the “ islands of Magastar and Zanzibar,” says he, “ there is no farther “ navigation southward³³⁴, because the sea runs there with great “ velocity to the south, so that it would be impossible for any “ vessel to return.” It must be here noticed, that as he writes Magastar and Madastrar for Madagascar, so under the name of Zanzibar he comprehends the main coast of Africa, which still takes the same name, and carries it to the extent of two thousand miles. Whatever error there may be in this, his mention of the current

³³² In the church of Saint Michael de Murano near Venice. Ram. vol. ii. Dichiariatione, p. 17.

³³³ There was a Portuguese version of Marco Polo published in Portugal in 1502, by a gentleman of the court, attendant on Eleonora, queen of Emanuel, who likewise published the account of Nicolas des Contes or Couti, and of Hierome de Saint Etienne. This publication, in 1502, makes it highly probable that Marco Polo's work was known in Portugal previous to the voyage of Diaz, and was now published when it could not in-

terfere with the glory of the discovery, and might give information of the countries in the east.

³³⁴ It is to be observed that the reading of this passage is very different in Ramusio from that of Bergeron. But both agree in stating the impetuosity of the current to the south. I have followed Ramusio, as I always do, in preference to other translators. See Ramusio, vol. ii. M. Polo, lib. iii. c. 35. Bergeron, cap. 39. See the account of this map, Ramusio, vol. ii. Dichiariatione, p. 17.

*between Madagascar and the continent is an illustrious truth, the more remarkable as M. Polo was never on this coast himself, but must have derived his knowledge of the fact from the Malays or Arabs, who were the only navigators of the Indian Ocean in his age. And the reason assigned for their not passing to the south, though they knew there were [lands or] islands in that quarter, is the very same which the Arabs of Sofala and Mosambique gave to the Portuguese at their arrival on the coast. The whole of this is consistent with the knowledge of the Greeks and Arabs, which terminated at Prafsum; and in all ages the current of the Mosambique Channel appears to have been an insuperable barrier to all but the Phenicians of Herodotus.

Such is the account of Marco Polo himself, and let us next consider the celebrated map of his travels which was preserved at Venice, and which was probably one of the most efficient causes which led to the discoveries of the Portuguese. Ramusio has preserved the history of this, and as his book is not in every body's hands, the reader will perhaps be gratified by the insertion of his account.

In the church of St. Michael di Murano near Venice, there was a case³³³ or cabinet near the choir, which contained this map that attracted the particular notice of all travellers who came to Venice. The map was composed by a lay-brother³³⁴ of the convent, from another map or chart which had been brought home by Marco Polo and his father, on their return from Tartary³³⁵. The original had been disfigured, and brought into disrepute by the insertion of a variety of things too modern for the age, and ridiculous in their

³³³ Arniara, Armoire.

³³⁶ Converso.

³³⁷ Cataio.

appearance²²⁸; still it was evident when the work of M. Polo came to be read again and considered, that this map and chart was composed by him or under his direction. The artist therefore who undertook to copy and reform it, leaving out the absurdities, and adding the longitude and latitude, which the original had wanted, framed the map which is now preserved in the church of St. Michael, and which is visited as the composition of Marco Polo himself. In this map a variety of curious particulars are observed, unknown before, or at least to the ancients; and more especially that towards the Antarctic circle, where Ptolemy had placed his unknown southern²²⁹ continent without sea; there appeared in this map, made so many years ago, the sea surrounding the extremity of Africa, so that a passage from the Indian Ocean into the Atlantic seems to have been known in the time of Marco Polo, though there was no name given to that promontory which the Portuguese afterwards called the Cape of Good Hope.

Three questions arise out of this account, 1st, Whether the delineation of the Cape in the copy is a proof that it existed in the original. 2dly, Whether this copy is the original from which the bishop of Viseo's map or chart was taken, which was delivered to Covilham; and 3dly, Whether the bishop of Viseo's map is that which is mentioned by Bruce.

First. It certainly does seem probable that the report concerning the termination of Africa in a cape was as current in Asia and the Indies as in Europe. That either the Chinese or the Malays did

²²⁸ As the old maps contain monsters both &c. might have been the additions here com-
on land and sea, so it is highly probable the plained of.

Ruck of M. Polo, lib. iii. c. 35. and Griffins, ²²⁹ Terra Australis incognita.

•navigate the ocean as far as Madagascar, and the coast of Zanguebar is evident ; for Marco Polo was not there himself, and could have his account only from them or from Arabs³⁴⁰, whom he might meet with on the coast of Malabar from Arabia or Africa. It should seem however rather from the former than the latter, for as Marco Polo is the first author who introduced the name of Madagascar³⁴¹ into Europe, so is it probable that this title is not given to it by the natives, but by the Chinese, Malays, or Hindoos. In confirmation of this we find in Cook's comparative vocabulary, drawn up by Mr. Marsden, that the Malay numerals, and some other radical words, are still current in that island. Now if the Malays traded to this island, or the coast of Zanguebar, they must have had intercourse with the Arabs settled there ; and that the Arabs did believe the possibility of a circumnavigation has been proved already, both from their observation of the interior, and from such intelligence as they might derive from Benomotapa. From some of these sources there can be little doubt that Marco Polo, if his map or chart contained the continent of Africa, might assign a termination to the coast, and convert that into sea which Ptolemy and his copiers had assigned to their southern continent.

But there is a stronger argument for believing that this African Cape was in the original of M. Polo, and not introduced by the artist who copied it, which is, that M. Polo himself speaks of the coast of Zanzibar, not as the continent, but as an island two thou-

³⁴⁰ The Arabs had been in India 600 years before the Portuguese arrived at Calicut, according to the Portuguese accounts, and we know from Pliny, that they were so settled or

spread on the coast of Malabar and Ceylon, that their superstitions had been adopted by the natives previous to his age.

³⁴¹ He writes Madastrar or Magastar.

sand miles in circumference³⁴²; whatever error there may be in this, it is self-evident, that if he made it an island, he must give it a termination on the south, as well as on the other three quarters; and if he delineated this, that southern boundary must be the very limit of Africa, which Ramusio says the copy contained. It is for this reason most especially, that we ought to admit the fact; and if the fact is admitted, to M. Polo must be assigned the honour of first giving this intelligence to Europe, and of opening the way for the discoveries of the Portuguese.

Secondly. What the map was which was composed for the use of Covilham by Calzadilia, afterwards bishop of Viseo, by Dr. Rodrigo and the Jew Moses, cannot be determined without better materials from Portugal than are in my possession; but there is great reason to believe, that the principal source of that work was the map of Marco Polo, because the first printed edition of his work was in Portuguese, dated Lisbon 1502, by a gentleman in the court of Eleonora, wife of Emanuel; and this being only four years after the voyage of Gama, when every spirit was roused by the discovery, it seems highly probable that the intelligence contained in this book was in possession of the court of Portugal previous to the expedition, and had been made use of by the kings of that country, for the purpose of instructing and encouraging those who were employed upon that service.

It is to be observed, that the original work of Marco Polo was composed in Italian by a Genoese, who took his instructions from the mouth of the author, when a prisoner at Genoa, about the

³⁴² A torno.

year 1300. From this Italian copy ³⁴³ a Latin translation was made at Bologna, and published in MS. two copies of which were preserved, one in the Library of the Canons of Latran at Padua ; the other at Colonia ³⁴⁴ in Brandenburg, in the Library of the Elector. Both copies are supposed to be nearly the same, but differ from another which was made at Bâsle. These are all manuscripts, but from one of these it may well be imagined that a copy had been procured by the Portuguese, during almost the whole century that their mind was set upon this object, from the first attempt of prince Henry in 1406, to the voyage of Gama in 1497. The edition of this work from the press, so early as 1502, in Portugal seems to confirm this, and as the circumnavigation was completed, it could now no longer be concealed, nor could any future adventurer detract from the honour of the discovery. These circumstances, it is true, amount to no proof, but afford ample ground for believing that the map delivered to Covilham was framed from this source of information. Whether the original map and chart of M. Polo, in the church of St. Michael di Murano at Venice, or the copy which replaced it had been copied by the Portuguese, I have no means to determine ; but as it seems to have been open for the inspection of all visitors, and as the ardour of the Portuguese was pointed to rival the commerce of Venice, from their first outset to the attainment of their object ; it may reasonably be concluded, that if they had no Portuguese ³⁴⁵ in that

³⁴³ The whole of this is from the preface of Andre Muller Grieffenhag in Bergeron.

³⁴⁴ What Colonia ? I wish the German Latinists would give us the modern names of cities.

³⁴⁵ Bruce, vol. ii. p. 96. says Don Pedro

Henry's brother brought a map from Venice, in which the cape was marked ; but he gives no authority. If I had known where to find this fact, I could have determined the question. I do not doubt it, but I wish both Bruce and many other authors would prefer the

that city to collect intelligence, they employed Jews for that purpose; for Jews they seem ever to have persecuted and trusted at the same time; a Jew was employed in forming Covilham's map, and two Jews were sent after him into Egypt.

Thirdly. What map it was that Covilham sent home, which he had procured from a Moor in India, cannot be determined; neither has Bruce, who mentions this circumstance, condescended to give us his authority. I suspend, therefore, all judgment upon this till I know the foundation on which it stands; it seems rational that the Mahomedans should have charts of their navigation^{““}, as well as the Europeans; but as no Mahomedan or Arab had passed the cape, the delineation of it must have stood upon the same sort of intelligence as Marco Polo had acquired in the east, or be inserted from imagination and the prevailing belief of the fact. Whenever I can discover the authority of Bruce it will deserve consideration, till then I shall think that if Covilham filled up the map he had received, or corrected it, or added to it such information as he could collect, it is a more probable account than the report of this Moorish map, which contained cities that never existed. Such a corrected map of Covilham's we read of in Castaneda, who seems to have seen it, as he says it was ill-written and disfigured; this I take to be the map to which Bruce alludes.

the information of their readers by marginal references to the vanity of a clean page. It does seem highly credible that the map of M. Polo was brought to Portugal by this Don Pedro.

^{3.6} What sort of charts or maps the Arabs

had, as late as 1400, may be seen by the map of the world I have inserted in the appendix from Al Edrissi. The Great Cape of Africa is not in that, though posterior to M. Polo; but the author is prior to the Venetian, though the copy of his work is later.

Voyages of BARTHOLOMEW DIAZ and VASCO DE GAMA.

XXVII. FROM the year 1410³⁴⁷ to 1486 the Portuguese had been engaged in advancing their discoveries to the south ; some progress had been made in every reign ; but the honour of doubling the extreme cape of Africa was reserved for John the second. In ³⁴⁸ 1486 Bartholomew Diaz sailed from Portugal with three ships; he is called an officer of the king's storehouse at Lisbon, but is manifestly of a family ³⁴⁹ which had long been employed in these voyages of discovery ; and had probably been gratified with a place of trust for merits in the service. He advanced to 24° south, one hundred and twenty leagues beyond the track of former navigators, and then stretching boldly out to sea, never touched upon the coast again till he was actually forty leagues to the eastward of the cape, which he had passed without seeing it in his passage.

This however was not the termination of his discovery, for he proceeded to the river del Infante, upwards of six degrees to the eastward of Agulhas³⁵⁰, which is the most southern point of Africa, and near a degree beyond the Cape of Good Hope. The reason of his return is not quite evident ; but he had parted³⁵¹ with one of his

³⁴⁷ One thousand four hundred and six is given as the first date of prince Henry's designs.

³⁴⁸ See Castaneda, Faria, Mickle, Oforius, Bruce.

³⁴⁹ We meet with Dinis Diaz and Vincent Diaz in 1447, and John Diaz who was one of the first company erected at Lagos in 1444. Faria, p. 9.

³⁵⁰ Cape Agulhas or Needle point. These

names still decorate our charts, and it is but justice to preserve the names and language of every discoverer. The French have had the vanity to displace several appellations of our late discoverers. But La Peyrouse was honester than his countrymen.

³⁵¹ He met this vessel on his return with only three of the crew alive. One died for joy.

little fleet on his passage, and it may be presumed that the impossibility of collecting information from the natives, with the continuance of the coast to the eastward, which he might have expected to trend to the north, contributed to his determination. Five and twenty leagues short of this river he erected his cross on a rocky islet, which still bears the name of De la Cruz, in the bay of Algoa ¹⁵². This is a perpetual monument to his honour, and the Grand Cape which he saw on his return he styled the Cabo Tormentoso, from the tremendous storms he had encountered on his passage. The different sentiments with which this discovery inspired his sovereign upon his return, reversed the omen, and changed the Stormy Cape into the Cape of Good Hope, a name which has superseded the pretensions of all occupants and all conquerors, and which it is hoped will preserve the glory of a generous monarch, and his hardy subjects, to the end of time.

Still, though the discovery was made, it was not completed. India had been the object of the sovereign, and the nation, for almost a century; but India was neither found, or seen, or heard of, this was wanting to the fame of Diaz, and this was the cause that all the glory of the discovery attached to Gama. Gama was a man of family ¹⁵³, and Diaz failed under him, with an inferior command; he had not even the satisfaction of attending his superior to the completion of his own discovery, but returned from St. Jago, and was again employed in a secondary command under Cabral, in the

¹⁵² Algoa, in the English charts, properly Del Agoa, (Agua, water,) there are two Del Agoas.

of his family; he at least had armorial bearings, which, in that age, implied the rank of gentleman. He bore a Gama, i. e. Dama.

¹⁵³ Faria. But Castaneda takes no notice

fleet that sailed to India in 1500. In this expedition Brasil was discovered, and in the passage from thence to the Cape, four ships perished, one of which was that of Bartholomew Diaz with all on board³⁵⁴.

It would seem natural that the discovery of Diaz should have been immediately prosecuted to its completion; but it required a deliberation of ten years and another reign before a new expedition was undertaken; and great debates are mentioned as passing in the council of Portugal, whether the attempt itself were expedient, or any advantage could be derived from it to the nation at large.

In the mean time, however, the design had never been relinquished, or the prior discoveries neglected; John II. had dispatched Covilham and his companions into the east, and the establishments on the coast of Guinea had been attended to with anxious solicitude. At length when Emanuel had determined upon prosecuting the discovery of India, Gama was selected for the service, and was conducted to assume his command on board the fleet, under the most solemn auspices of religion³⁵⁵. The king, attended by all his court, accompanied the procession, and the great body of the people was attracted to the shore, who considered him and his followers rather as devoted to destruction, than as sent to the acquisition of renown.

³⁵⁴ Mickle Lusiad, p. 201. Castaneda, or the nation. By all that we can collect of p. 73.

³⁵⁵ Bruce, who is no enemy to religion, no Volney, has condemned the religious solemnity attending this embarkation, as discouraging; but he seems neither to have considered the age

The fleet consisted of three small ships and a victualler, manned with no more than one hundred and sixty souls; the principal officers were,

Vasco de Gama.

Paul de Gama, his brother.

Bartholomew Diaz, who was to accompany them only to a certain latitude.

Diego Diaz, purser, brother of Bartholomew.

Nicolas Coello.

Pedro Alanquer, who had been pilot to Diaz.

Gonzalo Gomez.

They sailed from Lisbon on the 18th of July 1497, and after parting with Diaz at St. Jago, reached the Bay of St. Helena in latitude $32^{\circ} 35' 0''$, on the 4th of November. They had on board several who spoke the Arabick language, and others who had acquired the Negro tongue by former voyages to the Gold Coast, Benin, and Congo. In the Bay of St. Helena they found the natives which we now call Hottentots, as we discover by the mention of a peculiarity in their utterance, which the journal calls sighing³⁵⁶, and which Vaillant describes by the term *clappement*, a guttural cluck, the characteristick of their language. None of the Negro interpreters understood this dialect.

A quarrel arose between the voyagers, and these harmless and timid natives, from the suspicion of treachery, natural to those who visit barbarous nations for the first time; and in the skirmish Gama himself was wounded in the foot. This accident hastened their

³⁵⁶ Castaneda, p. 7.

departure.

departure. They left the Bay on the 16th of November ; Alanquer declaring that the cape could not be much farther than thirty leagues distant, though he could not describe it, as he had passed it without seeing ³⁵⁷ it, under the command of Diaz. For the four following days it was a continued tempest at south south west, during which Osorius ³⁵⁸ introduces the account of Gama's confining his pilots in irons, and standing to the helm himself. Castaneda mentions nothing of this circumstance ; his narrative indeed is brief and dry, but seems to be a copy of the journal ³⁵⁹. On the fourth day the danger was surmounted ; they doubled the Cape on the 20th of November, and getting now the wind in their favour, came to an anchor in the Bay of St. Blas, sixty leagues beyond the Cape, upon the Sunday following. This Bay still bears the name of St. Bras in our charts ; and the natives found here were the same as those of St. Helena.

At St. Blas the fleet staid ten days and was supplied with oxen by the natives. They found also penguins and sea lions in great numbers. They discharged and burnt the victualler, and then proceeded on their voyage to the eastward. The rock de la Cruz, where Diaz had erected his pillar, was by estimation sixty-five leagues from St. Blas, and the river Del Infante fifteen farther to the east. When Gama set sail the current was strong against him, but having the wind in his favour, which blew a storm from the 8th to the 13th, he pushed forward till he was sixty leagues from St. Blas, on the 16th of December. Here he made the coast ³⁶⁰, which

³⁵⁷ I follow the Journal of Castaneda ; he must have seen it on his return.

³⁵⁸ Somewhere about Cape Arrecife or

³⁵⁹ Vol. i. p. 48.
³⁶⁰ It often glides from the third into the Foul Cape.

had a good appearance, with herds of cattle on the shore." He passed within sight of de la Cruz, and wished to have come to an anchor at the river Del Infante, but the wind being adverse, he was obliged to stand out to sea, till on the 20th of December it came again to the west, and carried him through the currents which had opposed him all round the Cape. The good fortune which attended him in obtaining this wind, at the time when the current was most unfavourable, inspired gratitude in the heart of Gama to that Providence which protected him ; he offered up his tribute of thanksgiving, and declared to his people, that he verily believed it was the will of God that India should be discovered³⁶¹.

From the 20th to the 25th he ran along a coast which he styled Terra de Natal, from the celebration of the Nativity on that day. It lies between latitude $32^{\circ} 30' 0''$ and 30° south; and on the 6th of January 1498 he reached a river which he named De los Reycs, from the feast of the Epiphany ; he did not anchor here, though in great want of water, but proceeded till the 11th, when he landed at a river called Cobio³⁶², and which, from the treatment he received, he left afterwards marked with the appellation of Rio dos buonas Gentes, or the River of Good People.

The natives here were no longer Hottentots but Caffres, who even in that age bore the same marks of superior civilization, which they preserve to the present hour. A circumstance more fortunate and more extraordinary was, that Martin Alonzo understood their language. This is a most remarkable occurrence, as Alonzo could scarcely have been lower than Mina on the western coast, which is forty degrees from the Cape, and the breadth of the continent

³⁶¹. Castaneda, p. 10.

³⁶² Ibid. p. 11.

from west to east cannot, in the latitude of 20° south, be less than eighteen or nineteen degrees more. What Negro nation or language do we know of such an extent? and yet wonderful as it is, there is no reason to doubt the fact. These people had mean houses, but well furnished, and were possessed of iron, copper, pewter, salt, and ivory.

The fleet staid here till the 15th, and obtained, wood, water, fowls, and oxen. Proceeding on that day to the northward, they continued their voyage till the 24th; in this run they passed Cape Corrientes and the low coast of Sofala without anchoring, till they reached a river, which, from the circumstances that arose, they had afterwards reason to call the river of Good Signs³⁶³ (de bons Sinas).

It is a circumstance particularly noticed by the historians, that from St. Helena to this place no vestige of navigation, no sort of embarkation had been seen. But here, upon the morning after their arrival, they were visited by the natives in boats, which had sails made of the Palm³⁶⁴. This roused the attention of every one on board, and in the course of a few days two men of superior rank came on board, who had garments of cotton, silk, and sattin; this was the first infallible *sign* of the produce of India, and hope glowed in every heart. The language, however, of their visitors was unknown; they understood not the Negro dialect of Alonzo, nor the Arabick of Alvarez³⁶⁵, but they intimated by signs that they had

³⁶³ Faria, p. 18.

³⁶⁴ Faria. The expression is not clear, but intimates cloth made of fibres of the coco palm. It is worthy of notice that Castaneda

mentions *boats* here, but nothing of *sails* till they approached Mosambique.

³⁶⁵ Osorius says, one of them spoke Arabick very imperfectly, vol. i. p. 51.

seen ships as large as the Portuguese, and seemed to mark the north as the quarter where they might be found.

Here then Gama determined to prepare for the completion of his discovery. The natives were quiet; they were not Mahomedans. The women received the seamen with complacency, and provisions were easy to be procured. These were all inducements for laying his vessels a-ground and careening them. He gave orders accordingly; and during a stay of more than thirty days, which this service required, no dispute arose to disturb the harmony between the natives and their visitors.

This river is the Zambezè, which is navigable for two hundred leagues up to Sucumba³⁶⁶, and penetrates into the interior of Benomotopa. It falls into the sea through a variety of mouths, between latitude 19° and 18° south, which are known in our modern charts as the rivers of Cuamo and Quilimanè, from a fort of that name upon the northern branch³⁶⁷. I find nothing in Castaneda or Faria to mark the extent of Gama's knowledge at this place, but as he had the corrected chart of Covilham on board, in which Sofala was marked as the limit of his progress; if that chart was furnished with the latitude, Gama must have known that he had now passed the barrier, and that the discovery was ascertained. The most southern branch of the Zambezè is two degrees to the north of Sofala. He must likewise know that the directions given by Covilham were to inquire for Sofala and the island of the Moon³⁶⁸. And whether he

³⁶⁶ Resende, p. 80.

³⁶⁷ I cannot ascertain which mouth of the Zambezè Gama anchored in. I suppose it to be the largest, which is that most to the north, as Resende places the river of Good Signs in

in latitude $17^{\circ} 50' 0''$. P. Lobo calls Quilimanè the river of Good Signs, p. 202, ed. Paris, Le Grande.

³⁶⁸ The Island of the Moon is an Arabick name and occurs in Al Edrifi.

understood the language of the natives or not, the name of Sofala³⁶⁹ must have been pronounced to them in an intercourse of thirty days, and the quarter where it lay must have been obtained.

We are here approaching to a junction with the discoveries of the Arabians, the Egyptians, the Greeks, and Romans; and though possibly none but the Arabians³⁷⁰ had been as low as Sofala by Sea, certain it is, if the authority of Ptolemy may be credited, that the Romans had penetrated inland to the southward of the equator, and terminated their researches with a nation they styled Agisymba. Ptolemy³⁷¹ mentions two Roman officers, Septimius Flaccus and Julius Maternus, who had been engaged in these expeditions to the south, Flaccus from Cyrene³⁷², and Maternus from Leptis. Flaccus reported that the Ethiopians [of Agisymba] were three months journey south of the Garamantes, and Flaccus seems to have performed this march himself. Maternus reported, that when the king of the Garamantes set out from Garama to attack the Ethiopians of Agisymba, he marched four months to the south. Ptolemy does not allow the use made of these reports by the geographer Marinus, which would carry Agisymba into 49° or 55° south latitude, still under his own correction he carries Praenum³⁷³ into latitude 15° and Agisymba somewhat farther to the south.

Wonderful as this march of Flaccus is to contemplate, through the very heart and most desert part of Africa into such a latitude, it is still more extraordinary that the latitude of Praenum should coincide with Mosambique, and that two or three degrees farther to the

³⁶⁹ See Oforius, p. 52.

³⁷² Libya.

³⁷⁰ And the Phenicians, if Sofala is Ophir.

³⁷³ Page 115.

³⁷⁴ Lib. i. c. 8.

south, the kingdom of Benomotapa⁷⁴ should occur, in which Zimbao is still the name of a tribe, or as the Portuguese writers affirm, the court of the sovereign⁷⁵.

It is by no means necessary to assert, that Mosambique is identically Pra sum, or the Zimbaos Agisymba, but the coincidence of latitude led the Portuguese almost to a man to give credit to the one, and the coincidence of sound⁷⁶ has left a constant belief of the other. The Portuguese pilots were many of them well read in Ptolemy. It is from information of this sort that Di Barros maintains that Sofala is almost surrounded by a river issuing from a lake called Maravi, which the ancients supposed to be the origin of the Nile; a charge not very unjust, if we consider that Ptolemy has

⁷⁴ Benomotapa is celebrated by all the Portuguese, as the source from whence all the gold dust at Sofala, and on the coast is acquired. There is said to be a gold mine in that kingdom called Manica, and others of silver, as Faria affirms, (vol. iii. p. 148.) and gold is also found in the streams which come down from the mountains. These mountains, which Rennell calls the Belt of Africa, Di Barros places between the equator and tropick of Capricorn. What their breadth is, or whether they communicate with those of Abyssinia is still problematical. That they do, is highly probable; and as they throw down the Nile to the north, on the south they may well produce the Zambezè, or rivers of Cuamo or Quilimanè; as well as the Obii and Quilimane at Paté and Ampaca, and the great lake which all speak of with so much uncertainty. We may suppose all these rivers which come to the south productive of gold as well as the river of Benomotapa. And as the kingdom of Abyssinia in its more flourishing state certainly extended its influence

to Magadexo, in latitude 5° north, so may we discover the means by which, in all ages, the gold dust of the south found its way into that kingdom. Bruce says it has no gold of its own, and yet gold by the ounce, and bricks of salt are the current coin of the kingdom. This method of procuring gold in Abyssinia from the south was known both to the Greeks and Arabs, and must apparently have been the primary cause of their voyage to the south, and possibly of those performed by the Idumcans, Phenicians, and Solomon to Ophir, if Ophir and Sofala be the same.

⁷⁵ Di Barros, in Ramusio, p. 261. vol. i. Baibosa, ibid, vol. i. p. 288. Marmol, vol. iii. who copies Di Barros.

⁷⁶ D'Anville calls them Zimbas or Muzimbas, and seems to think them the same as the Gallas, who have been the peop of Abyssinia for many centuries past. The lake here noticed he first introduced into a map composed for Le Grande's edition of Lobo in 1728.

brought

brought the source of that stream into $12^{\circ} 30' 0''$ south, though Di Barros himself is as bold in his assertion when he derives from the same lake ⁷⁷⁷ "the Zambezè, with all the streams of Cuamo, the Espíritu Santo which falls into the sea below Cape Corrientes", and another river which is to traverse the whole continent into Congo.

At this river of Zambezè we have a right to consider the discovery of Gama ascertained, as he had here united his circumnavigation with the route of Covilham; but we must conduct him to Quiloa, in order to make him meet the limit of the Periplûs at Rhaptum, and to Melinda, before he obtained a pilot to conduct him to the Indies.

It was not till the 24th ⁷⁷⁹ of February that the fleet was repaired and ready to sail; and it is remarkable that the people had suffered much here from the scurvy, notwithstanding the country is said to have abounded with fruits of various sorts in abundance; the disease is imputed to the lowness and humidity of the coast, and the humanity of Gama is recorded as opening all his own stores for the relief of the afflicted. Upon the resumption of his course he kept along the coast for six days, and upon the first of March came in sight of four islands that lie off the port of Mosambique. It is upon the approach to this port that Castaneda first mentions boats furnished with sails; and no sooner did this sight meet the eyes of the navigators than Coello, running up along side of his commander,

⁷⁷⁷ Marmol speaks of a Lake Zafan here, which he confounds with the Tsana or Dembea of Habez, p. 156, et seq. ⁷⁷⁸ See Di Barros, in Ramusio, vol. i. p. 386. et seq.

⁷⁷⁹ An. 1498.

cried out, “ How say you, sir, here is another kind of people;” and such indeed they found them, for Mosambique was at this time under the government of Quiloa, the sovereign of which was master of the coast from Sofala to Melinda³³⁰, with most of the islands in the neighbourhood. From the colour of the voyagers they were easily mistaken for Turks³³¹, with whom the Moors were necessarily acquainted in the Red Sea, and for this reason, upon the first interview every civility was imparted, and pilots granted at their request. With the discovery of this mistake, and the treachery in consequence of it, we have no concern, but with the appearances that evinced an Indian commerce Gama had every reason to be gratified. The vessels were such as traded along the coast, large, but without decks, the seams sewed with cayro, or cordage made of coco, and the timbers fastened with the same without a nail throughout. The sails were mats composed of palm leaves; and many of the larger sort had charts³³² and compasses³³³. The Moors of the Red Sea and India received here the gold of Sofala in exchange for their commodities; and the town, though meanly built, furnished abundant specimens

³³⁰ Mombaça excepted, which had revolted, and Melinda was preparing for a revolt.

³³¹ Moors of Barbary, according to Osorius. But this is supposing that the natives of Mosambique knew that they had come round the Cape. It is much more probable that they supposed them Turks from the Red Sea who had been down to Sofala, or had been driven accidentally to the south.

³³² And quadrants, Osorius says; but perhaps without sufficient authority. I have not

the Latin work of Osorius, but suppose he might use astrolabe, which is rendered quadrant by his translator; this would not prove a knowledge prior to the Europeans, for the Arabick term is astharlab, evidently corrupted from the Greek, and shews its origin as readily as buffola. See Chamb. Dic^t. in voce.

³³³ The Arabick term for the compass is buffola, a certain proof that they derived it from the Italians who traded to Alexandria, Mickle, lxxx. See supra.

of pepper, ginger, cottons, silver rings, pearls, rubies, velvet, silk, and various other articles of an Indian trade. The inhabitants were mostly Caffres, but the government was in the hands of Mohamedans from Arabia, and as the commander had several who could speak Arabick on board, a communication was readily opened, and intelligence soon obtained that the voyage to Calicut was regularly performed, and the distance about nine hundred leagues.

The fleet remained at Mosambique and in the neighbourhood till the 24th of March, and then made sail along the coast to the northward³⁸⁴. I should have been glad to have conducted Gama to Quiloa, as I esteem it the Rhapta of the Periplus; and I could have wished to have ended his navigation from Europe where I terminated that of the Greeks from the Red Sea; but partly from treachery and partly from accident, he was carried past Quiloa, and proceeded to Mombaça; the same treachery attended him at this place as before, which deterred him from entering the port. Some of the people, however, landed and found a city much more splendid than Mosambique. Here likewise were found all the commodities of India with the citron, lemon, and orange, the houses built of stone like those of Portugal, and the inhabitants chiefly Mohamedans, living with all the splendour and luxury of the east.

The stay of Gama at this place was only two days, when he proceeded to Melinda and came to an anchor upon the 17th of

³⁸⁴ It may not be improper to notice that is thus in the Thames that we call North the language of the coast styles the course to way ships, Danes, and Swedes, east country the northward east, and to the Cape west. It ships.

March 1498. There is no harbour here but an open road¹¹³; the city, however, was splendid and well built, with houses of several stories, and the appearance of wealth throughout, evinced the extent of their commerce and their communication with India. Here though Gama was not without suspicion, he experienced every act of friendship and hospitality; and this, because Melinda was inclined to hostilities with Quiloa, and ready to receive every one as a friend who had experienced injuries in a rival city.

We are here to take our leave of Gama; his discovery was ascertained, and after having conducted him within the boundary of the Greeks and Romans, the object for introducing this narrative of his voyage is answered. It is but justice, however, to notice, that he reached the long sought shores of India, and visited Calicut, the centre of Indian commerce, without any particular misfortunes, but such as are natural to a first attempt. He returned to Lisbon in 1499, where he received every honour which a generous sovereign and grateful nation could bestow.

He was again honoured with the command of a squadron in 1502, when the style of his commission was that of admiral and governor; and he returned¹¹⁴ a third time in 1524, under the reign of John III. when he was raised to the title of viceroy and count de Vidigueira. During this command he died at Cochin in 1525, after having the satisfaction of living to see the power of his country paramount in the seas of India, from Malacca to the Cape

¹¹³ Such as are the ορμοι of the Periplus.

¹¹⁴ Faria, vol. i. p. 63, and 280.

of Good Hope. A power which she maintained for upwards of a century, and lost at last by the loss of those virtues by which it had originally been acquired.

Gama was formed for the service to which he was called, violent indeed in his temper, terrible in anger, and sudden in the execution of justice, but at the same time intrepid, persevering, patient in difficulties, fertile in expedients, and superior to all opposition. No action can entitle the most illustrious to the character of great, more than the fortitude he displayed when detained in Calicut by the Zamorin, and when he ordered his brother to sail without him, that his country might not be deprived of the fruits of his discovery. To the virtues of a commander he added the religion of a Christian, and though the religion of his age was never without a tincture of chivalry and superstition, in one sense at least his religion was pure. It was religion that supported him under the perils he encountered, and a firm persuasion that it was the will of Providence that India should be discovered. The consequence of his discovery was the subversion of the Turkish power, which at that time threatened all Europe with alarm. The east no longer paid tribute for her precious commodities, which passed through the Turkish provinces ; the revenues of that empire were diminished ; the Othmans ceased to be a terror to the western world, and Europe¹⁸⁷ has risen to a power which the other three continents may in vain endeavour to oppose. Portugal it is true has lost her pre-eminence in the east, but she still retains Brasil, which was the accident of her Oriental voyages, and

¹⁸⁷ Such is the opinion both of Abbé Raynal, Mickle, Dr. Campbell, Harris, &c. &c. See in Mickle, p. 83. a citation from Faria to this effect.

which has prolonged her existence as a nation to the present hour.

The reader will pardon this digression in favour of a man whom no historian ever contemplated without admiration, but if the history of the man does not attach to the purpose of the present work, the account of his voyage is one of its constituent parts. Our design has been to shew all that the ancients performed, or could not perform, and the voyage of Gama has been detailed, with all its difficulties, in order to prove the utter improbability of any previous navigation round the Cape. I will not say it was impossible, but I think it impossible to have been once performed and never prosecuted; I think it impossible that it should have stood upon the page of history as an insulated fact, through a lapse of one and twenty centuries, without imitation or repetition of the experiment.

XXVIII. IT remains still to shew the relative situation of the Arabs on this coast of Africa, such as the Greeks and Romans left them, and such as the Portuguese found them upon their arrival in the Eastern Ocean. The Periplūs mentions that the Arabs of Rhapta were subject to the sovereign of Maphartis, and Maphartis itself was one of the dependencies of Sabéa or Yemen. They employed the vessels sewed with coco cordage, from whence the name of the place, and they traded to India, Arabia, the Red Sea, and Egypt. Arabs of the same description Gama found here after the expiration of thirteen centuries, the same vessels on the coast, and

and the same foreign trade. One circumstance indeed was different, the religion of Mahomet had at the same time introduced superior vigour, and a more extensive commerce, engendered a hatred to the Christian name, which excited that malice and treachery which Gama experienced, and which, perhaps, without a difference of faith, the rivalship in commerce must necessarily have produced.

Of these Arabs there were two distinct parties, one called Zaydes or Emozaides, who were the first settlers upon record, and the other tribe from Baca in the Gulph of Persia near Bahrein ³⁸⁸. The Emozaides were hereticks of the sect of Ali, they came from Yemen, and seem to have occupied the coast of Africa, after the time of Mahomet, in the same manner as their Heathen brethren had settled there in the age of the *Periplûs*. The tribe from Baca were Sonnites or orthodox, who hate the Shiites worse than Christians; they had seized first upon Quiloa, and had extended their power for two hundred miles along the coast, but from their internal dissensions were declining in power when the Portuguese first arrived in the Indian Ocean. Upon the introduction of this tribe from Baca ³⁸⁹, the Emozaides retired inland and became Bedouins ³⁹⁰, they intermarried with the natives, and still exist as black Arabs, little distinguished from the Caffres who are found both on the continent and in the islands ³⁹¹, which lie in the Mosambique channel, and even in the island of Madagascar.

The

³⁸⁸ Di Barros, in Ramusio, vol. i. p. 386. to be of the tribe Beni Houle, in Oman.
et seq.

³⁸⁹ If we may judge from Niebuhr they ought

³⁹⁰ Wandering tribes that live in tents.

³⁹¹ The king of Johanna is perhaps of this cast.

The whole coast below Mombaça was under the power of these Sonnites from Baca; but Mombaça had revolted, was independent, and had a sovereign of its own, who was a Sonnite; while Brava and Magadoxo were styled repubicks, where the power was in the hands of twelve¹⁹² principal families forming an aristocracy, perhaps as conspicuous on that coast as Venice was in the Adriatick.

This state of the country is perfectly analogous to the description of it in the Periplûs; every city, says that journal, was a separate government, and every government had its independent chief. Such they were in that age, and such they might have continued if an European power had not arisen, which overwhelmed them all in a period of less than twenty years. Sofala, Mosambique, Quiloa, Angoxa, Ocha, Patè, Mombaza, Brava, and the Zanguebar Islands,

east, half Arab and half Negro, as Sir William Jones says the family came from the main. The proper name is Hinzuan, which became Anjuan, and Anjoanè easily made Johanna by an English seaman. It is one of the Comora Isles between Madagascar and the continent; and Comora still preserves the name of Comr, the Arabick name of Madagascar, the Island of the Moon.

¹⁹³ The love of independence is the ruling principle in the mind of an Arab, and a patriarchal sovereignty is the only one to which he can naturally submit. This it is which drives so many petty tribes into the deserts, which they occupy from Mesopotamia to the frontiers of Morocco, and from the coasts of the Persian Gulph to Mosambique. The residence in cities is unnatural to them, and though they do occupy places which they have

conquered, still every city must have its chief, and every chief finds a party within his walls which is hostile to his government. Niebuhr has painted this spirit of the people most admirably throughout his work. But the Mahomedan religion has also produced an aristocratick principle, subsisting under all the despotism of the east. The Ulemas, under the Turkish government, are an aristocracy between the monarch and the people; and whoever is acquainted with Oriental manners, knows that there were families which preserved a sort of ruling power in Samarkand, Bagdat, Basra, and all the principal cities of the east. Such a junction of families might well exist at Brava and Magadoxo, when the Portuguese first visited the coast; and any government where there was no ostensible chief would suggest to them the idea of a republick.

all submitted to Diego Almeida, and Tristan d'Acugnia before the year 1508. Melinda, which had always been friendly, lost all her importance, and Magadoxo only resisted with effect; but whether from the bravery of the people, or because it lay too much to the north to be of importance, is hard to determine. Had they not been conquered they must have sunk in their importance from the natural course of events; the finews of their commerce were cut, and their ships could not sail without a Portuguese pass. The produce indeed of the coast itself would still have maintained these cities from utter decadence, and brought foreigners to their ports; but the power of the Portuguese monopolized all profits, till it fell in its turn by the errors of the government, and by the avarice and peculation of its officers. Of all these conquests which do so much credit to their valour, and so little to their policy, Mosambique is the only possession which has survived the wreck of their empire; and this port is said still to be a profitable settlement, and to preserve an influence over the other states, which have reverted again into the power of the Arabs; among these the Inam of Oman is the chief, and Quiloa and Zanguebar are governed by Sheiks of his appointment³⁹³.

It was my intention to have closed this account of the coast, and this part of the Periplûs, which I call the African Voyage, with some particulars relating to the Arabian settlements, and their situation under the power of the Portuguese; but the whole of this subject has been so ably discussed by the writers of the M. Universal History, in their twelfth volume, and so much more at large than would have been suitable to the nature of the

³⁹³ Nicouhr, vol. ii. p. 146. Arabick, Tr. c1.

present work, that the labour is not necessary. Some particulars I had collected from Ressende's MS. in the British Museum, with which they were not acquainted, that might have been acceptable; but in general, the authorities they have followed are so genuine, and their own observations so just, as to admit of little farther enlargement upon the subject.

Herc, therefore, I close the First Part of my design, which was to examine the navigation of the ancients on the coast of Africa, from their first entrance into the Red Sea, to the termination of their progress to the south; and to connect their discoveries with those of the moderns, by fixing on the voyage of Gama as the point of union. The Second Part will contain two books allotted to Arabia and India, a subject less obscure, but still curious rather than amusing. The materials for the whole are collected, and will be published as soon as they can be reduced into form; but whether that period will be short or distant I cannot presume to calculate. I am fully sensible that want of leisure ought to be considered rather as a bar to publication altogether, than pleaded as an excuse for publishing a work incomplete or incorrect. But if time had been taken to complete the whole, it might never have been brought to the press; and if the part now edited be incorrect, it is not from negligence, or from misapplication of such leisure as I have, but from want of powers to perfect it to my own satisfaction. It remains with the

public to decide whether it will be better that the Second Part should be published or suppressed.

It is with extreme regret that I am again compelled to advert to the disagreement between Mr. Goffelin's opinion and mine, in regard to the limit of ancient discovery towards the south. I could have wished to have seen his work sooner, that I might have given it the consideration it deserves; or not to have seen it at all, that both our opinions might have been left undisputed, for the judgment of the publick; but I now cannot help observing, that although, from the pressure of time, I am not competent to decide on Mr. Goffelin's account of the ancient geographers, or the various methods he has assumed for correcting their errors, still I cannot but acknowledge his masterly and scientifick possession of his subject, as well as the great perseverance of his investigation; and if I differ in opinion from such a writer, I still pay respect to his talents and abilities. We differ, it is true, several degrees upon the extent of the voyage in the Periplûs. But if Mr. Goffelin will allow, which he does, that it extended beyond Cape Gardefan and Cape D'Affui, then he must acknowledge that seven mouths of rivers, answering to the last division of the voyage in the Periplûs, can nowhere be found till we approach the mouths of the Obii. This is the great proof upon which I rest the question; for supposing the Pyralaan Islands to be defined by the streams of that river, as it divides upon its approach to the sea, the Periplûs is in perfect harmony with the accounts of the Portuguese in general, and Ressende in particular; and if their authority is insufficient, I know of no better to which an appeal can be made.

A P P E N D I X.

The APPENDIX contains :

- I. AN alphabetical Catalogue of the Articles of Commerce mentioned in the Periplūs, with an Account of their Nature and Properties, as far as is requisite for the Elucidation of the Journal.
 - II. AN Account of the Adulitick Inscription found in Abyssinia by Cosmas Indicopleustes, a Monk of the sixth Century.
 - III. AN Inquiry into the corrupt Reading of the Manuscript, in regard to the Word, Ἐιτενηδιωματεναθεσίας.
 - IV. THE Form of the habitable World as imagined by Pomponius Mela, Cosmas, and Al Edrissi.
-

N. B. *As these several Particulars are designed for the whole Work when completed; they commence again with page 1, and will be accompanied by some other Disquisitions on the Winds and Monsoons, on the Site of Meroë, and on the Limit of ancient Discovery towards the East, with farther Inquiries, if authentick Materials can be obtained. The Second Part of this Work will contain the Arabian and East Indian Navigation of the Periplūs, with the Pages numbered in order from Part the First.*

ARTICLES of COMMERCE mentioned in the PERIPLUS MARIS
ERYTHRÆI assigned to ARRIAN.

A

I. Ἀσολλα. *Abolla.*

If this term be Greek, it is remarkable that it should not occur in any Greek Lexicon, and if it is Latin (as apparently it is), it is equally remarkable that a Greek merchant of Alexandria, such as the author probably was, should have introduced a Latin term into his Greek catalogue; but Latin terms crept into purer Greek writers than our author, and commerce perhaps had adopted this, as expressing the actual garment which was neither used by, or formerly known to the Greeks. The Roman *Abolla* was a military cloke¹, perhaps not unlike our watch cloke. And the adoption of the word is not more strange than the usage of the English in adopting the French *Surtout*, or the French adopting the English *Redingote* (Riding Coat).

¹ The word *Abolla* is not in Du Cange.

It seems worn as an outer military cloke by officers and men of rank. Ptolemy, son of Juba king of Mauritania, grandson of M. Antony by Selene the daughter of Cleopatra, was killed by Caligula, who was a great grand-

son of Antony, non alia de causa quam quod edente se munus, ingressum spectacula convertisse oculos hominum fulgore purpureæ *abolla* animadvertisit. Suet Calig. c. 35. It was likewise a garb of the Philosophers, audi facinus majoris *Abolla*. Juvenal.

A P P E N D I X.

2. Ἀξελοι νόθαι χρωμάτινοι.

Single cloths dyed and imitating some of a superior or different quality. But see Salmas. ad Vopiscum.

"Ἀξελοι, according to Salmasius (Plin. Exercit. 1062,) are single cloths, the same as ἀπλόιδες, in opposition to διπλόιδες, or double; but whether this relates to the texture, to the ornaments wrought on them, or the consideration of their being with lining or without, seems difficult to determine. Our weavers call a silk, *shot*, when the warp is of one colour and the woof of another; and the word "Ἀξελοι may be literally rendered *unshot*; but it does not follow that this is an accurate rendering of the term. Homer mentions garments both single and double; and Deborah makes the mother of Sisera say, that her son had perhaps brought home a raiment of needle work, of needle work *on both sides*, which is apparently correspondent to the tunick, which Ulysses describes to Penelopé (Od. lib. T. 230.). If this interpretation, therefore, should be admissible, "Ἀξελοι χρωμάτινοι may be rendered *plain cloths of one colour*, and νόθαι would express, that they were of an inferior quality. But see the term διπλοέματες, Diog. Laertius in Diogene, p. 350. Horace. *Duplici panno patientia velat.* And the address of Plato to Aristippus in Diog. Laert. Aristip. p. 67. Σοὶ μόνῳ δέδοται καὶ χλαμύδα φορεῖν καὶ ῥάκος. " You are the only Philosopher who can assume with equal " propriety the dress of a gentleman (*χλαμύδα*), or the ordinary " garb (*ῥάκος*) of a cynick."

3. Ἄδαμας. *Diamond.*

The ancients certainly apply this word to our modern gem the diamond, but use it in a larger sense as we still use adamant, applied to

to other hard substances. But in the only passage where it occurs in the Periplūs, it is mentioned on a coast where diamonds very probably were to be purchased, and is joined with the Hyacinth or Jacinth, and other transparent stones.

4. Ἀλόη. *Aloe.*

There are two sorts of Aloe, one a bitter cathartick, and another an aromatick, by some supposed to be the sandal-wood. See Salm. Plin. Ex. 1056. It is probably used by the author of the Periplūs in the former sense, as being mentioned on the coast of Oman in Arabia, where the Succotrine Aloe is naturally imported, as the island Socotra itself was under the power of the Arabs on the main, being subject to Eleazus king of Sabbathha, in the neighbourhood of Oman.

5. Ἀνδριάντες. *Images.*

These are mentioned as imported into Oman in Arabia, but whether as merely ornamental, or objects of superstition, does not appear.

6. Ἀργυρώματα, Ἀργυρᾶ σκέυη, Ἀργυρώματα τετορευμένα. *Plate,*
Plate polished.

These works in silver do not appear to be the beautiful produce of Greek artists, but vessels of plate adapted to the market. By the frequent mention of these articles they must have formed a considerable branch of commerce.

7. Ἀρσενικὸν.

7. Ἀρσενικὸν. *Arsenick.*

8. Ἀρώματα. *Aromaticks.*

Drugs in general are comprehended under this term (Sal. Plin. Ex. p. 1049, 1050).

9. Ἀσύφη. *A species of Cinnamon.* See Καννέα.

B

Βδέλλα. *Bdellium.*

An Aromatick gum, supposed to be imported from Africa, but now seldom used³. Salmasius⁴ describes it as a pellucid exudation from the tree so called, not quite clear, of a waxy substance, and easily melted, called by the Portuguese *anime*; there are three sorts, Arabic, Petræan, and Bactrian. It was imported, according to the Periplûs, from Binnagara, or Minnagara [Bekker,] in Scindi, and from Barygaza [Baroach,] in Guzerat.

The בָּדְלָה Bhedolahh of scripture, Gen. ii. 12. Num. xi. 7. rendered Bdellium, is by the Rabbis rendered Chrystal, and has nothing in common with the Bdellium of the Periplûs but its transparency. The word Bdellium seems a diminutive of the Bdella used by our author. Pliny, b. xii. c. 9.

There are still found three sorts, two African, rather of dark brown hue, and one Asiatick, answering the descriptions of Salmasius, generally brought to England among parcels of myrrh. There are specimens of the African sort in the collection of Dr. Burges.

³ Chambers in voce.

⁴ Plin. Exercit. p. 1150.

Γ

Γίζερ. Ζίγερ. Γίζι. A species of cinnamon. See Κασσία.
Zigeer in Persick signifies small.

Δ

Δικρόστια, p. 8. *Dicrossia*.—Cloths either fringed or striped.

Κορσάι and κροσσάι, according to Salmasius⁵, from Hesychius, signifies the steps of a ladder, or in another sense, the cornice of a wall, or the battlements. Salmasius derives the word from κείω, to shave, and interprets κόρσοι, locks of hair. Hence cloths, δικρόστια, he says, are those which have a fringe knotted or twisted.

But Homer uses the word twice. 1st. Κρόσσας μὲν πύργων ἔρουν καὶ ἔρεπον ἐπάλξεις. M. 258, where it agrees with the interpretation of Hesychius, the cornice of the wall, or as it may be rendered the *step* of the parapet, a-*rim* or *line* running round below the battlements. Not differing, perhaps, from the usage of the word as used Ξ 35, where Homer says, the ships were too numerous to be drawn up on the shore in one *line*. Τῷ ταὶ προκρόσσας ἔρυται⁶, they therefore drew them in *lines* one behind another like the steps of a ladder. Agreeable to the other explanation of Hesychius, or as Apollonius renders it, αποκρηπιδώματα, in *stripes*⁷.

We may therefore conclude, that we cannot err much in rendering the Δικρόστια of the Periplūs, either cloths *fringed*, with Salmasius,

⁵ Plin. Exercit. p. 762.

⁶ See Lennep in voce.

⁷ See Apolon. Lexicon in voce.

or *striped* with Apollonius. So Virgil, *virgatis lucent sagulis.* The term used here is in conjunction with cloths. Ἀσολοι καὶ λέντικ
καὶ δικρόστια, where perhaps Ἀσολοι is in opposition to δικρόστια, λέν-
τια is the Latin word Lintea.

Δηνάριον. *Denarius.—The Roman coin, worth in general denomi-
nation nearly 8d. English.*

It appears by the Periplûs, that this coin was carried into Abyssinia for the sake of commerce with strangers, and that both gold^{*} and silver Denarii were exchanged on the coast of Malabar against the specie of the country with advantage to the merchant.

Δάκαρ, Κίττα, Δάκαρ,

Are joined in the Periplûs with Kassia, and are supposed to be inferior species of the cinnamon. See Ramusio, in his discourse on the voyage of Nearchus, and Salmas. de Homonymiis Hyles Iatrices, c. xcii. c. xciii. a work referred to by Salmasius himself, but I have not seen it.

Δάλικα.

Slaves of a better sort and for the Egyptian market.

E

Ἐλαιον. *Oil of Olives.*

Ἐλέφας. *Ivory.*

Ἐυόδια. *Fragrant spices or gums.*

* The gold Denarius, according to Arburgh- the age of Nero.
not was the 45th part of a pound of gold in * Plin. Exercit. p. 1070.

Z

Ζῶναι σκιωταῖ.

Girdles or purses wrought or embroidered. A great commerce throughout the east is still carried on in fashions, ornamented with every sort of device, and wrought up with great expence. *Σκιωταῖ* does not occur in the lexicons, but probably means *shaded* of different colours.

Zīyyēq. Ginger.

Not mentioned in the Periplūs, but by Salmasius ^o, who says the ancients knew little of it, and believed it to be the root of the pepper plant.

H

Ημίονοι νωτηγοὶ. Mules for the saddle.

Θ

Θυμίαμα μοκρότικ. Gums or Incense.

I

Ιμάτια Βαρβαρίκα ἀγναφα τὰ ἐν Αιγύπτῳ γινόμενα. Cloths,

For the Barbarine^o market, undressed and of Egyptian manufacture.—The Barbarines are the ancient Troglodyte shepherds of

^o Plin. Exercit. p. 1070.

ⁱⁱ The west coast of the Gulph of Arabia.

Upper Egypt, Nubia, and Ethiopia, very graphically traced and distinguished by Bruce.

Ιμάτια Βαρβαρίκα σύμφικτα γεγναμμένα. Cloths,

For the Barbarine market, dressed, and dyed of various colours.

*Ιματισμὸς Αραβικὸς χειριδωτὸς ὅτε ἀπλεῖς καὶ ὁ κοινὸς καὶ σκοτειλάτος
καὶ διάχρυσος. Cloths*

Made up, or coating for the Arabian market:

1. *Χειριδωτὸς.*

With sleeves reaching to the wrist.

2. *Ο τε ἀπλεῖς καὶ ὁ κοινὸς. See Ασολὸι.*

3. *Σκοτειλάτος.*

Wrought with figures. From the Latin Scutum, Scutulatus; the figure being in the form of a shield. A dappled grey horse is thus called Scutulatus.

4. *Διάχρυσος. Shot with Gold.*

5. *Πολυτελῆς.*

Of great price.

6. *Νόθος.*

In imitation of a better commodity.

7. *Περισσότερος.*

Of a better quality, or in great quantity.

8. *Παντοῖος.*

A P P E N D I X.

15

8. Παντοῖος.

Of all sorts.

9. Πολύμιτρα πολύμιπτα.

Of thicker woof, or larger woof than warp.

"Ιπποι. Horses.

As presents, and as imports *into* Arabia.

K

Κάγκαμος. Kankampus—Gum Lack,

According to Scaliger; and Dioscorides calls it a gum. But Salmasius rather inclines to think it a drug like myrrh. Lack was used as a purple or blue dye by the Indigo dyers. Ινδικοβελφοι. Salmas. Plin. Exercit. 1148. 1152. Plin. xii. 20. See Pomet's History of Drugs, b. viii. p. 199, who says gum of four colours was found in one lump. He does not hold it to be Gum Lack, but that it has a smell like it; it is found in Africa, Brasil, and Saint Christopher's. Pomet's Specimen was from the West Indies.

Κάλτης. Kaltis—A Gold Coin.

According to the Periplûs it was a coin of this name current in Bengal, and that the metal was collected from a mine in the neighbourhood. Stuckius says, a coin called Kalais is still current in Bengal, on what authority does not appear. Paolino notices the word, but I cannot recal the passage to my memory.

Karpasos. Karpafus—Fine Muslins.

Opposed to ordinary cottons. It is remarkable that the native Shanskreet term is *Karpasi*, as appears by Sir William Jones's catalogue. Asiat. Ref. vol. iv. p. 231. Calcutta edition. But how this word found its way into Italy, and became the Latin Carbasus (fine linen) is surprizing, when it is not found in the Greek language. The *Karpasios λίνον* of Pausanias (in Atticis), of which the wick was formed for the lamp of Pallas, is Asbestos, so called from Karpafos a city of Crete. Salm. Pl. Exercit. p. 178.

Kassia. Casia.

This spice is mentioned frequently in the Periplûs, and with various additions, intended to specify the different sorts, properties, or appearances of the commodity. It is a species of cinnamon, and manifestly the same as what we call cinnamon at this day; but different from that of the Greeks and Romans, which was not a bark, nor rolled up into pipes like ours. Their's was the tender shoot of the same plant, and of much higher value, sold at Rome in the proportion of a thousand denarii ¹² to fifty; it was found only in the possession of Emperors and Kings; and by them it was distributed in presents to favourites, upon solemn occasions, embassies, &c. This sort we must first consider, because they themselves applied the name improperly, having it derived by their own account from the Phenicians ¹³, and giving it to the same production, though in a different form and appearance from that by which it is known to us.

¹² Pliny.

¹³ Herodotus, lib. iii. p. 252. ed. Weiss.

• The kinnamomum of the Greeks and Romans was necessarily derived from the Phenician¹⁴, because the merchants of that country first brought it into Greece. The Greeks themselves had no direct communication with the east, and whether this spice was brought into Persia¹⁵ by means of the northern caravans, or by sea into Arabia, the intermediate carriers between either country and Greece were of course Phenicians. It will therefore be no difficult matter to prove that the Phenician term expresses the cinnamon we have, and not that indicated by the Greeks and Romans. The term in all these languages signifies a pipe, for the Hebrew קְנֵן Kheneh, is the Latin Canna; and Syrinx, Fistula, Cannella, and Cannelle, convey the same idea in Greek, Latin, Italian, and French. The Hebrew term occurs in Exodus xxx. 23, 24, joined with Casia, as it is almost universally in the writings of the Greeks and Romans. It is styled sweet cinnamon, and is written קְנֵן בֶּשֶׂם¹⁶, Khine-mon Besem, the sweet or sweet scented pipe, and the word rendered Casia by our translators¹⁷ is خَدَّة Khiddah, from Khadit to split or divide longways. These two terms mark the principal distinctions of this spice in all these languages, as Khine-mon Besem, Hebrew; Casia Syrinx, Greek; Casia Fistula¹⁸, Latin; Cannelle,

¹⁴ See a curious mistake of Pliny's noticed by Larcher, of turning the Phenicians into a Phoenix. Tom. iii. p. 349.

¹⁵ By Persia is meant the whole empire.

¹⁶ The whole 33d. chapter is worth consulting on this curious subject, as it proves that many of the Oriental spices and odours were even in that early age familiar in Egypt.

¹⁷ If from this chapter of Exodus we prove that cinnamon was known to the Hebrews in the age of Moses, we have a second proof of its being used in the embalment of the Mum-

mies from Diiodorus, lib. i. xci. tom. i. p. 102. Larcher, tom. ii. p. 314.

¹⁸ The Casia fistula of the moderns is a drug totally distinct, it is a species of senna which comes from the Levant, Egypt, Brasil, and the Antilles, and is a corruption from Acacia. Salm. Plin. Ex. p. 540. Certe Casiae nomen pro ea specie quae solvit alvum ex Acacia factum quamvis diversum sit genus, Id. p. 1056. This corruption is not of very modern date, for Salmasius adds, ut mihi sit ante hos trecentos et amplius annos, Casiam Fistulam

Cannelle, French; Khiddah, Hebrew; Xylo-Casia¹⁹, Greek; Casia-Lignea, Latin.

Whether the Greeks and Latins derive their term from the Hebrew khine-mon²⁰, or from the compound kheneh-amomum, is not so easy to determine, for amomum is a general term²¹ for any drug or spice, and kin-amoinum in this form would be again the spice-canna, the casia fistula under another description. But that the casia fistula and the casia lignea are marked as the two leading distinct species, from the time of Moses to the present hour, is self evident. And I now say, that if the Romans applied the term cinnamon to the tender shoot of this plant, and not to the pipe cinnamon, such as we now have it from Ceylon, their use of the word was improper. That this was the case there is reason to think, but that there was some obscurity, or fluctuation in their usage is certain also.

Salmasius²² quotes Galen to prove that the plant itself was brought to the emperor Marcus Aurelius, from Barbarikè²³, in a case seven

Fistulam Latinis dictam, eam que purgandi vim habet. See also Ramusio, vol. i. p. 282.

¹⁹ This species is distinctly marked in the Roman Law de publicanis, leg. xvi. D. Casia-Syrinx, Xylo-Casia. Salm. 1055, id. in Canticis Salomonis Nardus, Crocus, Fistula cinnamomum. It is called Σκληροτες, Hard Casia, in the Periplus.

²⁰ קְנֵה is from קָנַח, a reed, canna, and the termination doubtful, but probably from מִנְחָה, peculiar. It is in this sense that קָנָה, manna signifies the food from Heaven. The peculiar food or bread. And hence קְנֵה, the peculiar canna, by way of pre-eminence. Parkhurst derives it not from קָנַח, canna, but from קָנַח, khanam, to smell strong,

but he allows there is no such verb in Hebrew. I cannot help thinking that קְנֵה בְשֶׂם, khennah besem, and קְנֵמָן בְשֶׂם, khinnemon besem, have the same root. The sweet khenne, the sweet khinnemon. Notwithstanding khennah besem is rendered calami odoriferi, the sweet calamus, it is certainly not technically the calamus aromaticus.

²¹ Salm. 401.

²² Plin. Ex. p. 1304. Galen de Antidotis, lib. i.

²³ Barbarikè is perhaps not a proper name, but the port frequented by the Barbarians of Adel or Moyillon. It is the mart in Scindia, but whether Patala or Minnagara, is difficult to determine.

feet long. Galen saw this, and there were other cases of a smaller size, containing specimens of an inferior sort. This, therefore, must be in a dry state; but this he says was the true cinnamon. Undoubtedly it was, for the plant itself, and the spice, as we have it, in its usual form, have this difference and no more. But Galen says, in another passage²⁴, that casia and cinnamon are so much alike that it is not an easy matter to distinguish one from the other. And Dioscorides writes, "Casia grows in Arabia; the best sort is red, of a fine colour, almost approaching to coral, strait, long, and pipy, it bites upon the palate with a slight sensation of heat, and the best sort is that called Zigir, with a scent like a rose." This is manifestly the cinnamon we have at this day; but he adds, "cinnamon has many names, from the different places where it [is procured or] grows. But the best sort is that which is like the casia of Mosyllon, and this cinnamon is called Mosyllitick, as well as the casia." This therefore is only a different sort of the same spice, but it does not grow either in Arabia or at Mosyllon, it took its name from either country, as procured in the marts of either. This traffick is explained in the *Periplūs*, but Dioscorides was unacquainted with it. The description²⁵ he gives of this cinnamon is, "That when fresh, and in its greatest perfection, it is of a dark colour, something between the colour of wine and [dark] ash, like a small twig or spray full of knots, and very odoriferous." This is manifestly not our cinnamon, but the same as Galen's, the tender shoot and not the bark. It is worth remarking that Dioscorides lived in the reign of Nero²⁶, and if the true source of cinnamon was

²⁴ See Ramusio, vol. i. p. 282. The whole p. 348. He is equally indebted to Salmasius of this is from Ramusio. as myself.

²⁵ See Larcher's whole Dissertation, tom. iii. ²⁶ Hoffman in voce. •

then just beginning to be known by means of the navigation detailed²⁷ in the Periplùs, this knowledge had not yet reached Asia²⁸ Minor or Rome. Pliny who lived a few years later had just arrived at this information, for he says expressly, Mosyllon was the port to which cinnamon was *brought*²⁹, and consequently the port where it was procured by the Greeks from Egypt, and through Egypt conveyed to Rome. It had long been procured there, and long obtained the name of Mosyllitic, but it was now known not to be native, but imported at that place.

The trade to Mosylon was opened by the Ptolemies; still before the existence of a Grecian power in Egypt, the Greeks had probably little knowledge of it, but from the importation of it by the Phenicians; and the Phenicians received it, either by land carriage from the Idumeans of Arabia, or when they navigated the Red Sea themselves with the fleets of Solomon, they obtained it immediately from Sabēa; perhaps also, if Ophir is Sofala on the coast of Africa, they found it either at that port, or at the others, which the Greeks afterwards frequented. These lay chiefly in Barbaria, (the kingdom of Adel,) comprehending the ports of Mosylon, Malao, and Mundus, where it was possibly always to be met with. This commerce indeed is at best only conjectural, neither could it be of long duration, as it ended with the reign of Solomon, and was never resumed; but that the Phenicians had a settled intercourse with Sabēa we learn incontrovertibly from Ezekiel³⁰, and that Sabēa was the centre of Oriental commerce, is proved in our account of the Periplūs.

²⁷ Dioscorides was a native of Anazarba, but whether he wrote there or at Rome, I have not been able to discover.

²⁸ Portus Mosyllites quo cinnamomum dovebitur. Lib. vi. c. 29.

²⁹ Cap. xxvii. v. 23. Sibca is Sabēa.

It is this circumstance that induced all the early writers to impute the produce of India to the soil of Arabia; an error which commenced with the first historians extant, and which existed in history till the age of Pliny, and in poetry almost to the present hour. Fable is the legitimate progeny of ignorance; we are not to wonder therefore when we read in Herodotus³⁰, that casia grew in Arabia, but that cinnamon was brought thither by birds from the country where Bacchus was born, that is India. The term used by Herodotus indicates the cinnamon we now have, for it signifies the peel, hull, or rind³¹ of a plant, and evidently points out the bark under which form we still receive this spice. The error of Herodotus is repeated by Theophrastus, who assigns both casia and cinnamon to Arabia³²; this intelligence I receive from Bochart, and I am obliged to him also for a very curious citation from Uranius, in Stephanus de Urbibus, who says, the country of the Abasenes produces myrrh, aromatick gums, or odours, frankincense, and the bark [of cinnamon]³³. This passage is valuable as the first instance extant in which the name of Abyssinians is mentioned. But it is not to be depended on, unless it can be referred to the conquests of that nation in Arabia, for these Abascni are evidently joined with the Arabians of Sabêa and Hadramaut.

But whatever errors are to be found in ancient authors, relative to the production of spices in general, and cinnamon in particular,

³⁰ Lib. iii. p. 252. cd. Weiss. and p. 250, where he mentions a similar fable of serpents which guard the frankincense.

³¹ Κάρπιον, from Κάρπω, arefacio, to dry, and hence the dry hull, peel, or shell of a plant or fruit.

³² Bochart, vol. i. p. 105. Sir William

Jones, Af. Ref. iv. 110. 113.

³³ Ἡ χύρα τὸν Αἴαστον δέρει καὶ στρῶν [quod

"τοῦ] καὶ θυμίχρα καὶ ΚΕΡΙΠΛΑΘΟΝ. Bochart, vol. i. p. 106. Kéripabos is probably the Κάρπηον of Herodotus, unless it is a false reading for Κάρπαθος or Κάρπατος, one of the terms for cotton.

still that they found their way into Egypt, Palestine, Greece, and all the countries bordering on the Mediterranean, in the earliest ages, is a fact. This admits of proof from the thirtieth chapter of Exodus, and we have traced the course of their introduction in the preliminary disquisitions of the first book.

We may now, therefore, proceed to examine the various sorts of this spice, mentioned in the *Periplûs*, which amount to ten; and very remarkable it is, that the modern enumeration of professor Thunberg should comprehend just as many species. Not that it is to be supposed the species correspond, but the coincidence of number is extraordinary. It is worthy of notice also, that cinnamon is a term never used in the *Periplûs*, the merchant dealt only in casia, cinnamon was a gift for princes; there is even in this minute circumstance a presumption in favour of his veracity, not to be passed without observation.

His ten sorts are,

I. Μοσυλλιτικη. *Mosyllitick.*

So called from the port Mosyllon, where it was obtained by the Greeks from Egypt, and whither they always resorted from their first passing the Straits of Bab-el-Mandeb. It was the casia fistula, the same as we now have from Ceylon, and imported at Mosyllon directly from India, or from the Arabian marts on the ocean, which were rivals of the Sabæans. It is mentioned by several authors as the best sort, or inferior only to Zigeir, and therefore could not be native: there is indeed cinnamon on the coast of Africa, but it is hard,

• hard, woody³⁴, and of little flavour. The regio cinnamomifera of Ptolemy, bears no other sort but this; he places this tract at the boundary of his knowledge, that is, between Melinda and Mosambique, and if it is in any way entitled to the name, it cannot be from its own produce, but on account of the importation of the spice from India; the traders who found it there, might suppose it native, in the same manner as the early writers speak of the Mosyllitick, and which (as has been already noticed,) Pliny first mentions as imported. The Mosyllitick species is rarely called cinnamon by the ancients, but casia only. Their cinnamon was exhibited as a rarity, as that of Marcus Aurelius before mentioned. Antiochus Epiphanes³⁵ carried a few boxes of it in a triumphal procession; and Seleucus Callinicus presented two minæ of this species, and two of casia, as the gift of a king to the Milesians. The casia or modern cinnamon was found formerly in Java, Sumatra, and the coast of Malabar; from the coast of Malabar it found its way to Africa and Arabia; but when the Dutch were masters of Cochin³⁶, they destroyed all the plants on the coast, in order to secure the monopoly to Ceylon; and none is now met with on the coast, but an inferior wild sort, used by the natives, and brought sometimes to Europe for the purpose of adulteration.

³⁴ Seven different sorts Oriental, and two American, I have seen in the collection of Dr. Burges; and an African species which is not a bark, but a mere stick, with little flavour. It answers well to the character of *σκληρότερον*.

³⁵ *Athenaeus*, lib. v. p. 195. lib. ix. p. 403.

³⁶ The Dutch are accused of this by their rivals, as well as diminishing the growth of nutmegs, &c. in the Molucca islands. But I observe in the account of Hugh Boyd's embassy to Ceylon (*Ind. Annual Register*, 1799), an assertion, that the true cinnamon never grew any where but in Ceylon.

2. Γίζειρ, Ζίγειρ, Γίζη. *Gizeir, Zigeir, Gizi.*

This sort is noticed and described by Dioscorides, as already mentioned; and to his description I can only add, that Zigeir, in Persian and Arabick, as I am informed, signifies *small*³⁷. The smaller bark must of course be from the smaller and tenderer shoots, which is still esteemed the best; the harder and thicker bark is cut and made to roll up in imitation of this, but is inferior, though from the same plant. This at least is supposed; but I do not speak from authority.

3. Ἀσύφη. *Asyphè.*

This term, if not Oriental, is from the Greek ἀσύφηλος, asyphēlos, signifying *cheap* or *ordinary*, but we do not find asyphē used in this manner in other authors; it may be an Alexandrian corruption of the language, or it may be the abbreviation of a merchant in his invoice.

4. Ἄρωμα. *Aroma.*

Aroma is the general name for any sweet-scented drug, but it is twice inserted in a list of casias, and is therefore probably a species as well as the others. It would intimate an aromatick smell or flavour, and is possibly one of superior quality. It is remarkable that Moses uses the same term of sweet-scented cinnamon.

5. Μώγλα. *Móglä.*

A species unknown.

³⁷ I doubt this relation at the same time I whether the Greek term *giza* be not a corruption; but an inquiry might still be made, of *gizi*.

6. Μοτῶ. *Motw.*

6. Μορύ. *Moss.*

A species unknown.

7. Σκληρεγα. *Sclerotera.*

From the Greek Σκληρὸς, hard. This is a term which occurs frequently, and perhaps distinguishes the *cassia lignea* (wood cinnamon), from the *cassia fistula*, (cannelle or pipe.cinnamon,) it may, however, signify only a hard and inferior sort, in opposition to brittleness, which is one of the characters of the superior species.

8, 9, 10. Δέσκα, Κίττα, Δάκαρ. *Duaka, Kitta, Dacar.*

All unknown. But Salinasius and other commentators agree in supposing them all to be species of the same spice.

These are the ten sorts enumerated in the *Periplūs*³³. Professor Thunberg, who visited Ceylon in his voyage from Batavia, reckons ten sorts likewise. Four of nearly equal value and excellence, three that are found only in the interior above the Ghauts³⁴, in the government of the king of Candi; and three which are not worth gathering. The most remarkable which he mentions are:

The rasse³⁵ or penni-curandu, honey cinnamon, and capuru curundu, or camphor cinnamon, from the root of which camphor is distilled; this last is found only in the interior. The cinnamon for the European market was collected in the woods by the natives

³³ Two other sorts may be collected from Galen; Arebo, and Daphnite. Larcher, Herod. vol. iii p. 345.

³⁴ I use the term improperly, but Ceylon partakes of the nature of the continent, the

coast is a level, the interior is high and table land. All above the mountains is still possessed by the king of Candi; the Dutch had, and English have, only the coast.

³⁵ See Knox's History of Ceylon, p. 16.

employed

A P P E N D I X.

employed in the Dutch service, but has since been planted on the sandy downs on the coast; these plantations, besides their convenience, are so thriving, that the practice is likely to be continued. Can I conclude this account without observing that this rich and valuable island is now in the possession of the English, and without a prayer that the commerce may be conducted on more liberal principles, and the natives treated more generously by them than by their predecessors. The knowledge which the ancients had of this island will be treated at large in the Second Part of the Periplūs, and it is to be hoped that the present governour Frederick North, whose mind is stored with ancient knowledge, and whose attention is alive to modern information, will communicate his researches to the publick.

I have only to add, that the Shanskreet names of this spice are savernaca and ourana, as I learn from the Asiatick Researches, vol. iv. p. 235. and that Salmasius mentions salihaca as the Arabick appellation, which he derives from the Greek Συλική, lignea, or woody, (p. 1306.) but which, if I did not pay great respect to his authority, I should rather derive from Salikē the Greek name of the island in the age of Ptolemy. I have now only to request that this detail, too prolix for the work, may be accepted by the reader, not as the natural but the clasical history of cinnamon.

Κασσίτερος. Tin.

Tin is mentioned as an import into Africa, Arabia, Scindi, and the Coast of Malabar. It has continued an article of commerce brought out of Britain in all ages, conveyed to all the countries on the Mediterranean, by the Phenicians, Greeks, and Romans, and carried

*ried into the Eastern Ocean from the origin of the commerce. It is only within these few years it has found its way into China in British vessels, where it is now become an article of such magnitude, as greatly to diminish the quantity of specie necessary for that market.

Καττυβούρινη, Πατροπαπίγη, Καβαλίτη. *Kattyburinè, Patropapigè, Kabalitè.* Peripl. p. 28.

Different species of nard. See Νάρδος.

Καυνάκαι απλοῖ καὶ πολλᾶ. *Kaunakai.*

Coverlids plain of *no great value*, (or according to another reading, *not many*,) with the knap on one side. Hesychius and Phavorinus, cited by Hudson.

Κολανδιόφωντα. *Kolandiphonta.*

Large Ships on the coast of Travancour, in which the natives traded to Bengal and Malacea. They had vessels also called Sangara, made of one piece of timber, which they used in their commerce on the coast of Malabar. The Monoxyla of Pliny, employed in bringing the pepper down the rivers to the coast. Lib. vi. p. 23.

Κοράλλιον. *Coral.*

Κοστρος⁴⁴. *Costus, Costum,*

Is considered as a spice and aromatick by Pliny, lib. xii. c. 12. It is called radix; the root pre-eminently, as nard, is styled *the leaf.*

Costus

⁴⁴ It is worthy of remark that in the enumeration of gifts made by Seleucus Callinicus to the Milesians, there should be this distinction: Frankincense - 10 talents.

| | | | |
|----------|---|---|-----------|
| Myrrh | - | - | 1 talent. |
| Cassia | - | - | 2 pounds. |
| Cinnamon | - | - | 2 pounds. |
| Costus | - | - | 1 pound. |

The

Costus being, as we may suppose, the best of aromatick roots, as nard or spikenard was the best of aromatick plants. This supposition explains a much disputed passage of Pliny. Radix et Folium Indis est maximo pretio ; the (root) costus, and the (plant) spikenard are of the highest value in India. Radix Costi gustu fervens, odore eximio, frutice alias inutili ; the root of the costus is hot to the taste, and of consummate fragrance, but the plant itself, in other respects, without use or value. It is found at the head of the Pattalenè, where the Indus first divides to inclose the Delta, of two sorts, of which that which is black is the inferior sort, and the white best. Its value is sixteen denarii⁴², about twelve shillings and eightpence a pound. Thus having discussed the costus or root, he proceeds to the leaf or plant. De folio nardi plura dici par est, but of this hereafter. It is here only mentioned to give the true meaning of the passage.

This root is said by Salmasius to grow in Arabia as well as India ; and I do not find that it has acquired any European name, though it was formerly much used in medicine, and called the Arabian or true costus. It always contracts a bitterness, and grows black by keeping, which probably accounts for the white being more valuable (as Pliny says), because it is fresh. Mr. Geoffroi, a French academician, mentioned under this article, in Chambers's Dictionary, considers it as the European elacampane root, which he asserts, when well fed and prepared, has the properties of the Indian aromatick.

Costus corticosus bark, costus has a scent of cinnamon.

The reason is evident ; frankincense and myrrh were procurable in Arabia, which bordered on his own kingdom. Casia, cinnamon, and costus were East India commodities. See Chishull, Antiq. Asiat. p. 71.

⁴² The numbers in Pliny are dubious.

Λ

Additioνεν⁴².

A gum or resin from a plant called ledra, lada, or ledum, a species of celtis. It is of a black colour, from Arabia; the East India sort is very heavy, and like a grit-stone in appearance. Dr. Burges informs me that it is adulterated with pitch from Pegu.

Λάκκος χρωμάτινος. Laccus. Coloured Lack.

Is a gum adhering to the small branches of trees, supposed to be deposited by an insect.—When taken off and melted it is reddish, formed into granulated seed, lack for japanning; into shell-lack for sealing-wax. Pomet. book viii. p. 200.

A dye of the red purple, (according to Ramusio, pref. to the Periplūs, *lacco de tingere*) but Salmasius, Plin. Exercit, p. 1160, says it is a cloth of this colour.

*Λέντια. Linen, from the Latin linteā. See Ιματισμός.**Λίβανος. Frankincense⁴³.**Λίβανος ὁ περατικὸς. From the Coast of Adel.*

A gum or resin sufficiently common in Europe still; originally introduced from Arabia only, and used by the nations on the Medi-

⁴² Herod. lib. iii. p. 253, where he says, tom. iii. p. 350.
is collected from goats' beards, a most fragrant, odorous gum. See Larcher, Herod.

⁴³ Olibanus, oleum Libani.

terranean under the denomination of thus and libanus which are synonymous. Its name is derived from לְבָן, laban, white, Heb. and لَوْبَن, loban, Arabick, because the purest sort is white⁴³ without mixture. See Bochart, tom. i. p. 106. Hence libanus and the corrupt olibanum. M. Polo calls it *encens blanc*. Bergeron's Col. p. 153. It was chiefly brought from Hadramaut or Sagar, a tract of Arabia on the ocean. The best sort is likewise in small round grains called χόνδρος, from the Arabick כַּנְדֵּר, chonder. Bochart, ibid. But Niebuhr says, that the libanus of Arabia at present is greatly inferior to that brought from India, as being foul, mixed with sand and stones; he adds also, that the plant which produces it, though cultivated at Keschia and Schahr (Sagar) is not native, but originally from Abyssinia. See Niebuhr. Arabia, tom. i. p. 202. ii. p. 131. in which opinion he is supported by Bruce. When he was in Arabia the English traders called the Arabian sort incense of frankincense, and the Indian or better sort, benzoin, and the worst benzoin was esteemed more than the best incense. The Arabs themselves preferred the Indian to their own, and called it bachor Java, either because it grew in that island, or was imported from Batavia. See also d'Anville, Geog. Anc. tom. ii. p. 223.

Λιθίας Ταλῆς πλείους γένη καὶ ἄλλης Μυρρίνης τῆς γενομένης ἐν Διοσπόλει. *Glass and Porcelane made at Diopolis.*

1st, Lithia Hyala. Several sorts of glass, paste, or chrystral.
See article Λιθία διαφανής.

2d, Λιθία Μυρρίνη.

⁴³ It grows yellow by keeping. Dr. Burges has specimens of Arabian libanus, but possibly Oriental.

Which

• Which Salmasius says, ought always to be written morrina, not myrrhina, myrrina, murrhina, or murrina. And he maintains that it is certainly the Oriental porcelane. It is here evidently joined as the adjective to Αἰθία, as it is afterwards (p. 28. Peripl.) mentioned with Αἰθία οὐχίνη, and connected in a similar manner Αἰθία οὐχίνη καὶ Μαργήνη⁴⁶, where it is specified as brought down from the capital of Guzerat, Ozene, (Ougein,) to the port of Barygaza or Baroach. All this seems to confirm the opinion that it was porcelane procurable in India at that time, as it now is; and that it was brought into Egypt by the ships that went to India. But what is more extraordinary is, that it was imitated in the manufactories of Diospolis in Egypt, just as our European porcelane is now formed upon the pattern of the Chinese.

• But in opposition to this, Gesner produces a variety of authorities from Io. Frid. Christius, to prove that it is a fossil and not factitious. The principal one is from Pliny, lib. xxxvii. c. 2. where it plainly appears that Pliny thought it a fossil from Carmania, while his description of it suits porcelane better than any substance which we know, as, variety of colours, purple, or rather blue and white spots, with a sort of variegated reflection between both. Martial styles it myrrhina picta, xiii. p. 110. and notices it as capable of containing hot liquors.

Si calidum potes ardenti murra Falerno
Convenit, et melior fit sapor inde mero.

This *sapor* and the *odor* mentioned by others are the only properties we cannot attribute to it in conformity with the language of the ancients. Martial notices likewise,

Maculosæ pocula murrae.

⁴⁶ And thus Gesner cites; Heliogabalus . . . myrrhinis et onychinis minxit. Lamprid. 32.

And when another citation is adduced

Murreaque in Parthis pocula cocta fociſ. PROPERTIUS. iv. 5. 20.

Christius is forced to contend that *murrea* is not the same as *murrina*, but an imitation like the Diospolite manufacture.

That it came from Parthia⁴⁷ into Egypt, to the countries on the Mediterranean, and to Rome, seems evident from a variety of authorities, and that it might well do, if we consider that Parthia communicated with India by means of the Persian Gulph, and possibly on the north with China⁴⁸ itself, by means of the caravans. The mention of Carmania by Pliny, as the country where the murrina were obtained, favours the supposition of procuring these vessels from India; for the communication of Carmania with Scindi and Guzrat is almost immediate, and certainly prior to the navigation from Egypt to that coast. But in Guzerat they were obtained, when the author of the *Periplūs* was employed in that trade; and their arrival at the market of Baroach, from the interior of India, may induce us to suppose, that they came into India from the north.

The immense value of these vessels at Rome might well arise from their scarcity. They were first seen there in the triumphal procession of Pompey; and it must be observed that Pompey returned from the shores of the Caspian Sea. They were afterwards introduced into use at the tables of the great, but of a small size and capacity, as cups for drinking. Afterwards one which held three

⁴⁷ The kingdom, not the province, as we may see from a former citation noticing Carmania.

⁴⁸ That there was an intercourse with the Seres on the north of the Himmalu mountains, and that exchange of commodities took place

at some frontier, like that between the Russians and Chinese at Kiatcha is evident from Ptolemy, Pliny, and the *Periplūs*. Whether the Seres were Chinese or an intermediate tribe between India and China is not material.

.sextarii or pints, was sold for seventy talents; and at length Nero gave three hundred for a single vessel. The extravagance of the purchaser might in this instance enhance the price, but the value of the article may be better estimated by the opinion of Augustus, who, upon the conquest of Egypt, selected out of all the spoils of Alexandria a single murrhine cup for his own use. Now therefore if the murrhine was porcelane, it may be a piece of information acceptable to our fair countrywomen, to know that Cleopatra did not indeed sip her tea, but drink her Marcotick wine out of china.

I have not been able to consult the work of Christius, but take the account of his argument from Gesner, and I refer the reader for further information to Gesner in voce, to Chambers's Dictionary, to Salmasius, Plin. Exercit. and to an express dissertation in the Volumes of the Academy of Belles Lettres, which I have formerly seen, but have not now an opportunity of consulting. I recollect that it is in favour of Salmasius's opinion, that murrina and porcelane are the same.

Λιθία διαφανής.

A transparent substance of stone or pebble, but it is probably here the glass made of stone as clear and bright as chrystral, and the same as Υαλή, Hyalè mentioned before. Salmasius, p. 1096, has a very curious quotation from the Scholiast on Aristophanes ad Nubes, Act ii. scen. i. " We call Hyalos (he says) a material made of a certain plant burnt, and wasted by fire so as to enter into the composition of certain [glas] vessels. But the ancients appropriated the term hyalos to a transparent stone called kruon, or chrystral."—This perfectly accords with the manufacture of glass, composed of sand, or flints, and the ashes of a plant called kali or vitraria

vitraria in Narbonne. Salm. ibid. and Chambers in voce. But glass has its name from glastum⁴⁹ or woad, *the blue dye*, because common glass was of that colour, but the transparent stoney glass [flint glass] here mentioned seems to take its name [$\deltaιαφανης$] transparent, and [$\gamma\alphaλη$] chrystalline, from its superior purity and imitation of the chrystral. The whole passage in the Scholiast is interesting, and worth consulting. Nub. act. ii. scen. 1. l. 766. Την "Ταλον λέγεις.

" The hyalos or chrystral is formed circular and thick for this purpose [the purpose of a burning glass], which being rubbed " with oil and warmed, they bring near the wick of a lamp and " light it :" [it was rubbed with oil probably to clean it, but why warmed does not appear.] " Homer knew nothing of the " chrystral, but mentions amber :" [true, for with Homer $\kappaρυσταλλος$ is always ice.]

Hence it appears that chrystral was known to Aristophanes, and the application of it to the purposes of a burning glass ; that glass was known in the time of the Scholiast, and that Homer knew nothing of either. The use of a pebble or chrystral, however, to kindle fire is known at least as early as the writings of Orpheus περὶ λαθων. And if the writings attributed to Orpheus be really the work of Pythagoras, or a Pythagorean, as Cicero supposes, De Nat. Deorum, the knowledge of this property is still very old.

That clear or flint glass assumed its name from "Ταλη, chrystral, is still more apparent from a passage of Diodor. Sic. lib. ii. p. 128. ed. Wessel. where mention is made of both sorts, the factitious and native

⁴⁹ See Vossius ad Melam, Varior. ed. 1722, who cites Pliny, lib. xxii. c 1. Simile Plantagini Glastum in Gallia, quo Britannorum conjuges nurusque toto corpore oblitæ. Vol. sius addit, apud Cambro-Britannos ifatidis pro- ventus Glas appellatur, et cæruleum colore. Herba ifatis is Woad.

Τελον, as he writes it. The glass coffin of Alexander is called *Ταλίνη*, by Strabo, lib. xvii. p. 794. See Herod. iii. p. 206, et Wessel. not. et Diod. ii. p. 15.

Αἴθος καλλιευνὸς καλλιαινὸς.

Stone of Calleau, literally Goa stone, for Callien is a river that falls into the sea near Goa, and retains its name to this day. Rennell, d'Anville. Not that this is the modern drug so called, but a blue stone^{so}, according to Salmasius, p. 240, and an emerald in the estimation of Ramusio, pref. to the Periplūs.

Αἴθος ὄψιανὸς.

Probably serpentine or hæmatite marble, in the opinion of Dr. Burges. Opsian or opsidian stone.: But Salmasius ridicules Pliny for calling it opsidian, or saying it was discovered by Opсидиус. In Greek it is always opsian, and is a green stone very dark, approaching to black. It was found in the islands of Ethiopia; and from taking a high polish was used by the emperor Domitian to face a portico, so that from the reflection he might discover if any one was approaching from behind.

The opsidian stone, mentioned by Pliny, is factitious, and seems very much to resemble the material of which our brown or red tea-pots are composed. Totum rubens, atque non translucens, hæmaticum appellatum. See discourse in the Memoirs of the Academy of Sciences. The specimens of this stone, which I have seen, are so dark that the green cast can only be discovered by holding them in a particular position. The closeness of their texture seems

~~But~~ he mentions it as a topaz, and says blue, why not a turquoise? which is still a there are topazes of two different colours; if favourite stone in the east.

to admit of any degree of polish that the artist may be disposed to give them.

Λύγδος. *Lygdus.*

A beautiful white marble, or rather alabaster used to hold odours; Ramusio. Salmasius says, an imitation of this alabaster⁵² was formed of Parian marble, but that the best and original lygdus was brought from Arabia, as noticed in the Periplūs, from Moosa. Salm. p. 559.

Λύκιον. *Lycium.*

A thorny plant, so called from being found in Lycia principally. A juice from which was used for dyeing yellow, mentioned by Pliny and Dioscorides. The women also, who affected golden locks, used it to tinge their hair. Salm. p. 1164. Why this should be sought in Scindi, if it was found in Lycia, does not appear. It is found now in the shops by the name of the yellow-berry, box thorn, grana d'Avignon. Dr. Burges.

Λωδίκες. *Lodices.*

Quilts or coverlids.

ἢ πολλαὶ απλῶι καὶ ἐντόπιοι.

Coverlids plain and of the country manufacture at Moosa.

⁵² Unguenta optime servantur in alabastris. Plin. lib. xiii. p. 3.

M

Maṇyaśīrau, p. 84.

Pearls, fished for near Cape Comorin, where the fishery still continues, or the Lackdive Islands, formed a great article of commerce on the coast of Malabar.

Μαλαβάθρον, p. 84. *Malabathrum*.

A drug or aromatick as much disputed as any Oriental name which occurs. But generally supposed to be the betel nut, written betre, and preserving a relation to the two final syllables of the Greek. This nut is enclosed in the leaves of a plant called arecka, mixed with lime and sometimes with odours, and used as a masticatory, by almost all the Oriental nations, but more particularly in the Molucca islands, the Golden Chersonese, and China ; it turns the teeth black, and consequently makes white teeth out of fashion, as Prior says,

King Kihu put ten queens to death,
Convict on statute, Ivory Teeth.

The composition, being from two plants, the beetle nut and the arecka leaf, has probably given rise to the variety of descriptions and allusions in different authors. But Horace, lib. ii. ode, 7, uses it evidently as an aromatick unguent ;

— nitentes,
Malobathro Syrio capillos.

And Pliny, lib. xii. 26. xiii. 1. confirms the allusion by making it an unguent from Syria, but says a better sort comes from

Egypt, and superior still from India. This, therefore, cannot be the Oriental betel, though as an exquisite odour it may, by some intermediate corruption, have usurped a name, from the true *βάθρον* or betel. The price was prodigious, according to Pliny, the drug costing three hundred denarii, ten pounds a pound, and the oil sixty or seventy denarii. It was used, he adds, as an odour in wine lukewarm, and had the flavour of spikenard¹¹.

Whether the author of the *Periplūs* uses *malabathrum*, as the unguent known to Pliny and the Romans by that name, cannot be determined, as he merely gives the name without explanation in his list. But that he had obtained an obscure knowledge of the betre, and its form as rolled up in leaves, is proved in the manner of his using the term *petros*. This demands a separate consideration, and will be found at the conclusion of the *Periplūs*, explained in all its parts, as far as the learning of Salmasius can guide us.

Máxeip. Macer.

An aromatick from India, the bark red, the root large. The bark used as a medicine in dysenteries. Plin. xii. 8. Salm. 1302.

Máxaipas.

Knives or canjars worn at the girdle.

¹¹ It appears by Pliny, lib. xiii. c. 2. that almost all the fragrant odours of the east entered into the composition of their unguents. In the royal Persian unguent no less than twenty-six odours are enumerated, and among them the *malobathron*, which is not so properly an odour as a stimulant, if it be the betre, but it is frequently confounded with

the spikenard, the first of odours, which is pre-eminently called *folium*, or *the leaf*, in opposition to *costus*, or *the root*. But the betel-nut being wrapt in the arecka *leaf* has probably given rise to the mistake. See Pliny, lib. xii. c. 12. where the *hadrosphærum*, *me-sophærum*, *microsphærum*, all distinctions of the betel, are falsely applied to the spikenard.

Máxeip.

Μελιέφθα χαλκα.

'Brass'³³ or copper, prepared, as Ramusio says, for vessels of cookery. But rather for ornaments of women, as bracelets, anklets, and collars. No usage of *Μελιέφθα* occurs elsewhere; but metals were prepared with several materials to give them colour, or make them tractable or malleable. Thus *χολόσαφα* in Hesychius was brass prepared with ox's gall to give it the colour of gold, and used like our tinsel ornaments or foil for stage dresses and decorations. Thus common brass was neither ductile nor malleable, but the Cyprian brass was both. And thus, perhaps, brass, *μελιέφθα*, was formed with some preparation of honey.

Μέλι καλάρινον τὸ λεγόμενον σάκχαρον.

Honey from canes. Sugar.

In Arabick, shuker, which the Greeks seem first to have met with on the coast of Arabia, and thence to have adopted the Arabick name. It is here mentioned on the coast of Africa, where the Arabians likewise traded, and either imported it themselves from India, or found it imported; it was evidently not found in that age growing in Africa. The Shanskreet name of sugar is ich-shu-casa, and from the two middle syllables the Arabick shuka, or shuker. Af. Research. iv. 231.

Μελίλωτον. Honey Lotus.

The lotus or nymphæa of Egypt. The stalk contains a sweet and eatable substance, considered as a luxury by the Egyptians, and used

³³ This article is very dubious.

as bread; it was sometimes carried to Rome, and the *Periplus* makes it an article of importation at Barygaza. It appears also to have been used as provision for mariners; and if this was the favourite bread of Egypt, in preference to grain, Homer might well speak of it as a luxury and delicacy; but his lotus is generally supposed to be the fruit of a tree, by our African travellers. Authors differ, some asserting that it is still common in the Nile, others saying that the lotus now found there has neither pulp nor substance.

Μοκρότης θυμίαμα.

An incense called mocrotus or mocroton.

Μολόχινα.

Coarse cottons of the colour of the mallow. Others read *Movaxη*, either single threaded or of one colour.

Coarse cotton dyed of a whitish purple, and therefore called molochina from *Μολόχη*, *mallows*. Wilford, *Asiat. Dissertations*, vol. ii. p. 233.

Μόλυβδος. *Lead.*

Μοτῶ.

A species of cinnamon. See *Κασσία*.

Μύρον.

Myrrh or oil of myrrh. Unguent in general, but pre-eminently of myrrh⁵⁴

⁵⁴ The African is best, the Abyssinian, Arabian, and Indian worst. Dr. Burges.

Agum.

A gum or resin issuing from a thorn in Arabia, Abyssinia, &c. Bruce has given an account of the plant ; he says it is originally from Africa, and that the Arabian myrrh is still an inferior sort. See Bruce, Chambers, and Salmasius.

Μυρρίνη. See Λιθία Μυρρίνη.

Porcelane. See Gesner and Chambers in voce.

N

Νάρδος.

Nard or spikenard, p. 93. Νάρδος Γαπανική. Others read Γαγγιτική, nard of Gapanick or of the Ganges.

No Oriental aromatick has caused greater disputes among the criticks, or writers on Natural History, and it is only within these few years that we have arrived at the true knowledge of this curious odour, by means of the inquiries of Sir William Jones and Dr. Roxburgh.

Their account is contained in the ivth volume of the Asiatick Researches, and Dr. Roxburgh was so fortunate at last as to find the plant in a state of perfection, of which he has given a drawing that puts an end to all controversy on the subject.

The nard has the addition of spike from the Latin *spica*, an ear of wheat, which, according to Dr. Roxburgh's drawing, it perfectly resembles. And this adjunct is found also in its Arabick name, *sumbul*. And in its Shanskreet appellation, *jatámánsí* ; as also its Persick title *khústah*, all signifying *spica*.

Sir

Sir William Jones, Asiat. Res. iv. 117, says it is a native of Budtan, Népal, and Morang; and that it is a species of Valerian. It is remarkable that he had himself seen a resemblance of it in Syria, as the Romans or Greeks mention Syria as one of the countries where it is found; but Ptolemy gives it its true origin in these tracts of India. A specimen was brought down to Calcutta from Boudtan at the request of Sir William Jones, and the agents of the Deva Raja called it pampi; but it was not in flower. Some dried specimens of it looked like the tails of ermines, but the living ones, as Dr. Roxburgh afterwards found, rise from the ground like ears of wheat. It answers the description of Dioscorides. It is weaker in scent than the Sumbul spikenard of Lower Asia, when dry, and even lost much of its odour between Budtan and Calcutta. The odour is like the scent of violets; but the living plant is forbidden to be brought out of Boudtan. It was, however, procured by the intervention of Mr. Purling the English resident; and was at last received in its perfect form by Dr. Roxburgh, who has described it botanically.

As. Ref. iv. 733.

In the age of the Periplūs it was brought from Scindi, and from the Ganges; which, according to Sir William Jones, we ought to conclude would be the natural port for it, as coming from Boudtan. This authorizes the change of reading from γαπανική, [gapanika,] to γαγγιτική, [gangitikà], more especially as it is mentioned at the Ganges. Some fanciful inquirers might think they had found the mention of Japan in this passage.

We ought not to omit some particulars from Pliny which are remarkable. He describes the nard with its spica, mentioning also that both the leaves and the spica are of high value, and that the odour

odour is the prime in all unguents. The price an hundred denarii for a pound. And he afterwards visibly confounds it with the *malobathrum* or betel, as will appear hereafter, from his usage of *hadrosphærum*, *mesosphærum*, *microsphærum*, terms peculiar to the betel. The characteristick name of the nard is *folium*¹⁶, *the leaf* pre-eminently, in contradistinction to *costus* *the root*, both as the prime odours of their two sorts, the root and the leaf.

But there is still a more remarkable particular in Pliny, which is, that he evidently copies the Periplūs in the three places he allots for the markets of the spikenard; for he mentions Patala at the head of the Delta¹⁷ of the Indus, correspondent to the Barbarika of the Periplūs, and another sort which he calls Ozænitides, evidently agreeing with the mart of Ozéne (p. 75. Peripl.); and a third sort named gangitick, from the Ganges, answering to gapanick, for which all the commentators agree in reading gangitiōk. Very strong proofs these that Pliny had seen this journal and copied from it, as he mentions nothing of Ozéne in his account of the voyage, and only catches Ozænitides here incidentally. See Salmasius, p. 1059, et seq. who is very copious on the subject, and has exhausted all that the ancients knew of this aromatick¹⁸.

Ναύπλιος, p. 27. Nauplius:

It seems to be an inferior tortoise-shell from the context, which runs, καὶ χελώνη διάφορος μετὰ τὴν Ἰνδικὴν καύπλιος ὀλίγος, i. e. tortoise-shell of superior kind, but not equal to the Indian; and a

¹⁶ Salmasius, p. 1065, is clearly of opinion, that Pliny is regularly mistaken in applying *folium* to *nard*. He says it is always peculiar to *malebathrum* betel.

¹⁷ Whether this in Pliny does not apply to *costus*?

¹⁸ It resembles the tail of a small animal, in Dr. Burges's Collection.

small quantity of that species called nauplius. It may, however, be a different commodity, but I cannot trace it in Salmasius or Pliny, unless it be the shell of that fish he calls nauplius, lib. ix. c. 30. which seems a species of the nautilus.

Nῆμα Σηρικὸν καὶ Ἰνδικὸν μέλαν.

Black sewing silk both Chinese and Indian. If this passage could be ascertained as rightly rendered, it would prove that the silk manufacture was introduced into India as early as the age of the Periplūs. *Nῆμα* can hardly be applied to a web, it seems always to be thread, and here sewing silk. If indicon is the adjunct of nema there is no difficulty, but indicon melan may be indigo in the opinion of Salmasius.

O

Όθόνιον. Muslin.

1st sort. *Ἰνδικὸν τὸ πλατύτερον η λεγομένη Μοναχή.*

Wide Indian muslins called monakhē.

2d sort. *Σαγγατογήνη. Σαγγατογίναι.* Salm. reads *Σαματοπήνη*, from *πηνίον*, a thread. Salm. p. 1170.

Salmasius seems to interpret these two sorts as muslins made up in single pieces, or many in a parcel; he is not satisfied, however, with his own interpretation; but it is to be observed, that the finest muslins still come to Europe made up in single pieces, called book muslins from their form. And it is by no means irrational to conceive that a custom of this sort is coeval with the trade.

Monakhè, single.

Sagmato-ginè, made up in parcels.

Sagmato-penè, made of a bulky thread, or so thick as to serve for coverlids. Salim: *ibid.*

3d. fort. Χυδαῖον.

Coarse muslins, or rather coarse cottons, called at present dungarees; Wilford, *Af. Dissert.* vol. ii. p. 233. to which monakhè is opposed as a finer sort.

Oίνος. Wine.

1. **Λαοδικηῆς.** Wine of Laodicea, but which city of that name does not appear. There is a Laodicea in Egypt.

2. **Ιταλικός.** Italian wine.

3. **Αραβικός.** Arabian wine. It is dubious whether palm wine or toddy wine, it seems to have been a great article of commerce.

"Ομφαξ Διοσπολιτική. *Unripe grapes of Diopolis.*

In what form this was an article of commerce does not appear, it is mentioned but once. Unripe grapes, however, are imported into England both from Lisbon and Madeira.

'Οπήτια, p. 27. Awls or bodkins.

An article in trade on the coast of Africa, as needles are at this day.

Ορέιχαλκος. *Mountain brass.*

Used for ornaments. Ramusio calls it white copper, copper from which the gold and silver has not been well separated in extracting it from the ore.

Π

Παρθένοι ἐνειδῆς.

Handsome women slaves for the haram are mentioned as intended for presents to be sent up to the king of Guzerat, whose capital was Ozénè or Ougein.

Πελύκια.

Small hatchets or axes for the African trade.

Πέπερι, *Pepper.*

Imported from the coast of Malabar, as it still is ; the native term on the coast is pimpilim ; Salin. p. 1070. or the Shanskreet, pipali. Af. Ref. vol. iv. p. 234. The pepper coast is called in Arabick beled-el-fulful. D'Anville, Ind. p. 118.

It was found by the Greeks from Egypt first in Ethiopia, as an article of commerce brought thither by the Arabs, but was known in Greece much earlier.

Two sorts are distinguished in the Periplùs.

i. Κοττοναρικόν.

From Cottonara, the kingdom of Canara, according to Rennell, which is still the principal mart for pepper, or at least was so before

the English settled in Sumatra. This is the black pepper. See Marsden's Sumatra.

2. Μακρὸν.

Long pepper⁵⁸, so called from its form being cylindrical, an inch and an half long. It consists of an assemblage of grains or seeds joined close together. It resembles the black pepper, but is more pungent. It is a species of the East India pepper totally distinct from the Cayenne.

Περιζώματα.

Girdles or sashes, and perhaps distinguished from the following article,

Πηχυῖαι ἢ ζῶναι.

Sashes of an ell long, only in the difference of make or ornament.

Πιννικόν.

Pearls or the pearl oyster. See the fishery at Cape Comorin.

Πορφύρα διαφόρα καὶ χυδάια, p. 35.

Purple cloth of two sorts, fine and ordinary. An article of trade at Moosa in Arabia.

Ποτήρια, Drinking vessels,

Χαλκαὶ, Brass,

Στρογγύλα, Round,

Μεγάλα, Large.

⁵⁸ Tabaxir is the common long pepper.

Probably all three epithets apply to the same vessel. An article of import on the coast of Africa.

Πυρὸς ὄλιγος.

Wheat in small quantities, imported into Omana, or Oman in Arabia.

Πινόκερως. Rhinoceros.

The horn or the teeth, and possibly the skin, imported from the coast of Abyssinia, where Bruce found the hunting of this animal still a trade, which he has described in all of its branches, vol. iv.

Σ

Σάγγαρα.

Canoes used on the coast of Cochin for conveying the native commodities from the interior to the ports, and sometimes along the coast.

Σάγος Αρσινοητικῆς γεγναμμένοι καὶ βεβαμμένοι, p. 14.

Rugs or cloaks made at Arsinoe (Suez), dyed, and with a full knap.

Σανδαράκη.

Red pigment, Salm. p. 1155. found in gold and silver mines. Pliny. Ore of Cinnabar. Dr. Burges.

Σαπφειρος.

Σάπφειρος. *Sapphire stone.*

The ancients distinguished two sorts of dark blue or purple, one of which was spotted ⁵⁹ with gold. Salmas. p. 130, et seq. Pliny says, it is never pellucid, which seems to make it a different stone from what is now called sapphire.

Σηρικὰ δέρματα. *Chinese hides or furs.*

What is meant by δέρματα no where appears, unless it can be applied to the τάρποναι, whence the malobathrum was procured. But this is very dubious. See Μαλόβαθρον.

Σίδηρος. *Iron.*

An import into Abyssinia for the manufacture of spear heads, to hunt the elephant, rhinoceros, &c⁶⁰.

Ίνδικὸς.

Iron tempered in India.

Σινδόνες.

Fine linen of any sort, but that imported into Abyssinia might be Egyptian, and possibly of cotton, but

Σινδόνες αἱ διαφορώταται Γαγγιτικαὶ,

Can be nothing else but the finest Bengal muslins.

Σῖτος. *Wheat corn.*

⁵⁹ Dr. Burges has specimens of both sorts, the one with gold spots like lapis lazuli, and not transparent.

⁶⁰ To cut like an Indian sword, is a common Arabick proverb in Arabsha. And in

Egypt, Shaw (p. 364.) says, the hardest tools (as drills for working the granite Obelisks) were made of Indian iron. Shaw quotes the Periplus, but not perhaps justly.

Σκέπαρνα; *Adzes.*

In contradistinction to *πελύκια*, hatchets.

Σκεύη αργυρᾶ. *Silver plate.*

**Ταλά.*

Vessels of chrystral, or glass in imitation of chrystral.

Σμύρνα. *Myrrh,*

Διαφέρεσσα τῆς ἄλλης,

Of a superior sort,

**Εὐλεκτὴ,*

Of the best sort,

Στακτὴ. *Cum.*

Αβειδηνάια, read *Σμυρνάια*, by Bochart, Geog. Sac. ii. 22. Salm. 520. Extract or distillation from myrrh, of the finest sort. The reading is proved by Salmasius from a similar error in an un-edited epigram.

Στῆμι. *Στίμι.*

Stibium for tinging the eyelids black.

Στολὰὶ Ἀρσινοητικαὶ.

Women's robes manufactured at Arsinoe or Suez.

Στύραξ.

Στύραξ. *Storax.*

One of the most agreeable of the odoriferous resins. There are two sorts, storax in the tear, supposed to answer to the ancient styrax calamita, from its being brought in a hollow reed, or its distillation from it; and common storax, answering to the stacte styrax⁶¹ of the ancients. It now grows in the neighbourhood of Rome; but the drug was anciently brought thither from the islands in the Archipelago. See Salm. p. 1026. Chambers in voce. Most of these gums, resins, and balsams have in modern practice yielded to the American, as this seems to have given way to the balsam of Tolu.

Σῶματα, p. 15.

Slaves from Africa, an ancient trade! but the number was not great.

Τάκινθος.

The hyacinth or jacinth, a gem of a violet colour. But Salmasius says it is the ruby, p. 1107. See Solinus, c. xxx. p. 57. where it seems to be the amethyst.

X

Χαλκός. *Brass or copper.*

⁶¹ Strabo mentions styrax in Pisidia; a distillation from a tree, caused by a worm breeding in it. Lib. xii. p. 57c.

Χαλκεργύματα.

Χαλκεργύματα.

Vessels of brass, or any sort of brazier's work.

Χελώνη.

Tortoise-shell seems to have formed a great article of commerce, for ornaments of furniture, as beds, tables, doors, &c. both in Italy, Greece, and Egypt. It was brought from the coasts of Africa, near Moondus; Socotra, Gadrosia, Malabar, and the Lackdive, or Maldive islands; the former seem to be designed by *χρυσιονῆσος* of the Periplûs.

Χιτῶνες.

Under garments, imported from Egypt into Africa.

Χρῆμα. Specie.

The Periplûs is very accurate in noting the ports where it was necessary to trade with specie; and in more instances than one, notes the advantage of exchange.

Χρυσόλιθος. Chrysolite.

Sometimes the same as chrysites, the touchstone for gold, Salm. p. 1103; but described as a stone as it were sprinkled with spots of gold, Salmasius, p. 407. who points out what it is not, but cannot determine what it is. It may well be the topaz⁶².

Χρυσᾶν,

Used with *δημάριον*, as is *αργυρᾶν* also, expressing gold and silver denarii.

Χρυσώματα, Gold plate.

⁶² The Bohemian is yellow with a greenish tinge, the Oriental is very pale yellow. Dr. Burgess's Oriental topaz deep yellow.

No. II.

An ACCOUNT of the ADULITICK INSCRIPTION collected from CHISHULL, MONTFAUCON, MELCHISEDECK THEVENOT, and other AUTHORS.

THE Adulitick Inscription is in itself one of the most curious monuments of antiquity, but the preservation of it, and the knowledge which we have of it at this day, are still more extraordinary than the inscription itself. Cosmas (styled Indicopleustes, from the supposition that he had navigated the Indian Ocean, which in truth he had not,) copied a Greek inscription at Adûlè, which has since appeared to relate to Ptolemy Euergetes, and to prove that he had nearly conquered the whole empire of the Seleucidæ in Asia, and the kingdom of Abyssinia in Africa : two historical facts of considerable importance ; notwithstanding, his success in Asia was scarcely discovered in history¹, till this monument prompted the inquiry, and the conquest of Abyssinia still rests upon this evidence alone.

The veracity of Cosmas, in his report of this inscription, is established upon proofs which have nearly united all suffrages in its favour; some obscurity there still remains, and some few objections naturally arise, to which Chishull has given a sufficient answer. But there is one observation of his that is irrefragable, when he

* It does not now appear in any history to sentence cited out of Polyænus by Bayer. See the extent that the marble assumes, or in any infra.
one author that I can discover, except a single

says that Cosmas himself did not know² to which of the Ptolemies it belonged, and consequently he could not be the forger of particulars which accorded with one, and one only of the whole Dynafty.

The work of Cosmas is styled *Topographia Christiana*, and is intended to prove that the earth is a plane, in opposition to the philosophical notion of its being a sphere, which the author conceived to be an heretical opinion, contrary to the revelation of the scriptures. He had himself travelled much, and in the parts he visited, he still found they were all on a plane, as well as Greece; in consequence of this notion, his deductions are rather extraordinary; but the facts he relates, and the countries he describes, are given with all the marks of veracity that simplicity can afford.

There *were*³ two copies of his work, one in the Vatican, supposed to be of the ninth century, and another at Florence in the Library of Lorenzo⁴, attributed to the tenth. In 1632, Leo Allatius published the Adulitick Inscription from the copy in the Vatican⁵; and this was republished by Berkelius in 1672, and again by Spon in 1685, both from the extract of Allatius. The same inscription was again published by Melchizedeck Thevenot, in his *Collection of Voyages*, from the Florentine copy, extracted by Bigot. And finally the whole *Topographia Christiana* was edited by the indefatigable B. Montfaucon⁶ in 1706. Spanheim, Vossius, and Vaillant, all bear testimony to the authenticity of the inscription,

² He certainly likewise did not know the geography he details, and therefore he could not forge it. See Leukē Komē, a place on the Arabian side of the gulph, which he confounds with Leukogen on the Ethiopick side, in his own remarks on the marble.

³ *Were*, we say, because after the irruption

of the Vandals of 1798, who can say they are?

⁴ See the account of this library in Roscoe's Life of Lorenzo.

⁵ Chishull.

⁶ The publication is styled *Nova Collectio Patrum*, in two vols. folio, Paris 1706.

and

* and the internal evidence is such as hardly to leave a doubt upon an unprejudiced mind. Let us now hear Cosmas speak for himself.

Extract from the *Topographia Christiana* of Cosmas, written
A. D. 545, p. 140. ed. Montfaucon.

Adûlè is a city of Ethiopia, and the port of communication with Axiômis¹, and the whole nation, of which that city is the capital; in this port we carry on our trade from Alexandria and the Elanitick Gulph²; the town itself is about two miles from the shore, and as you enter³ it on the western side, by the road that leads from Axiômis, there is still remaining a chair or throne which appertained to one of the Ptolemies, who had subjected this country to his authority. This chair is of beautiful white marble⁴, not [so white indeed as the] Pro-connesian⁵, but such as we employ for marble

¹ After the peace made with Scleucus for ten years, and renewed afterwards for ten years more, scarce a word occurs in history concerning Ptol. Euergetes, till this account on the marble was discovered by Cosmas more than 700 years after the invasion of Ethiopia by this monarch. CHISHULL.

² Written in different authors Axuma, Axoma, Axioma, and Axiomis.

³ The trade of Solomon and Hiram was carried on from Ezion Geber, at the head of the Elanitick Gulph. And in all ages, I imagine Ela, Aila, or Ailath, to have been the mart to which the Phenicians of Tyre resorted, or to Phenicon, which perhaps took its name from them. Ela and Phenicon may at different times have been in the possession of Nabatheans, Petreans, Egyptians, Tyrians, Hebrews, or Romans.

⁴ See the view of Adûle in Cosmas's draw.

ing, in which both pyramids and obelisks appear; mean as the execution is, these are a certain proof that the manners and customs of Abyssinia in that age were Ethiopick and Egyptian. Bruce found the same at Axûma, and if he could have stopped at Meroë to examine the ruins he there passed, assuredly they would have been Egyptian also or Ethiopick. He saw no remains of ruins from Axûma to Meroë.

⁵ Δοκυαῖς, valuable, costly.

¹² The island of Proconnêsus in the Propontis naturally supplied Constantinople with marble, with which it so much abounded, as to change its name to Mârmora, and to give that title to the Propontis, now called the Sea of Mârmora. A monk of Constantinople of course referred to the marble with which he was most acquainted. The church of Santa Sophia is built with Proconnessian marble.

tables ; it stands on a quadrangular base, and rests at the four corners on four slender and elegant pillars¹³, with a fifth in the centre, which is channeled in a spiral form. On these pillars the seat is supported, as well as the back of the throne, and the two sides on the right and left.

The whole chair with its base, the five pillars, the seat, the back, and the two sides, is of one entire piece, carved into this form; in height about two cubits and a half, and in shape like a bishop's throne¹⁴.

At the back of the chair is a tablet of basanite [or touch] stone¹⁵, three cubits in height, the face¹⁶ of which is an [oblong] square, while the whole mass is in the form of a lambda, rising to a point at the top, and spreading at the bottom, Λ. But the front¹⁷ is quadrangular. This tablet is now fallen behind the chair, and the lower part of it is broken and destroyed, but the whole of this [stone or] marble and the chair itself is [in a manner covered over and] filled with Greek characters.

¹³ Αερίο κάνθα.

¹⁴ Cathedra.

¹⁵ Basanites is supposed to be an Egyptian marble or granite, and the name also to be Egyptian, and not Greek from βάσανος, as it is usually esteemed. See Chambers's Dictionary, art. touchstone. The Greek term βάσανος, might possibly be derived from Egypt, the country where the touchstone was procured. But it is perfectly Greek in its usage and derivation.

¹⁶ Τερψάνων ος ἡκάδη. I render this literally, but not correctly. Chishull writes, ad modum tabule pictorie, but how *ικάδη* has that sense I cannot determine. I suppose this basanite stone or marble to be in the form of a wedge,

square [an oblong square] on the broad face, and like a Λ on the sides, the broad superficies is so represented in the drawing of Cosmas, an oblong square broken at the corner, the channelling of this tablet is represented as carried round the broken corner, whether this is the error of Cosmas or the engraver must be determined by the MSS.

¹⁷ Σώμα, body, the whole body or mass of a marble in the form of a lambda cannot be a square, but a wedge; it is one of the faces of this wedge which must be meant, and even this would not be a square, but quadrangular (*τερψάνων*), as represented in the drawing of Cosmas, that is a parallelogram.

Now it so happened that when I was in this part of the country, about five and twenty years ago¹⁸, more or less, in the beginning of the reign of Justin the Roman emperor, that Elebsaan¹⁹ the king of Axiomites, when he was preparing for an expedition against the Homerites²⁰ [in Arabia] on the other side of the Red Sea, wrote to the governor of Adûlè, directing him to take a copy of the inscrip-

¹⁸ The reign of Justin commences in 518. The expedition of Elebsas is usually placed in 525, the eighth year of Justin, but the marble might have been copied a year or two years before the expedition.

¹⁹ It is a most remarkable circumstance, that in a history so obscure and wild as that of Abyssinia, any fact should be established upon such clear and satisfactory grounds, as this of the reign of Elebsas and his expedition into Arabia. But the authorities adduced by Baronius, Montfaucon, Ludolfus, Chishull, and Bruce are so express, that there cannot remain a doubt; and if that reign is established, the veracity of Cosmas needs no other support. Now it appears from the evidence they have adduced, that the sovereigns of Abyssinia, in the reign of Justin, about the year 525, had extended their power into the country of the Homerites, which is a district of Sabéa, where they had a governor residing; it appears also that some Abyssinians had been put to death by Dunaanas, one of the native chiefs in Arabia, and a Jew, who are still considered as martyrs to their faith, and that Elebsas undertook an expedition into Arabia, in which he was successful, and punished the assassin of his subjects. His Abyssinian title was Caleb el Atseba, or Caleb the *Blessed*; whence the Greek corruption of Elebsas, Elebsas, and Elebsaan (Bruce, vol. i. p. 503. Ludolf., p. 165. Hist. of Ethiopia). Bruce assures

us, that this history is confirmed by the Chronicle of Axúma, and Montfaucon cites Nónnosus in Photius, whose testimony corroborates the chronicle in the amplest manner, (Montfaucon Nova Collectio Patrum, tom. ii. p. 140.) for Nónnosus speaks of himself as ambassador from Justin to Kaisus, an Arab prince of the Khíndini and Maadéni, and to Elebsás king of Axúma, agreeing so much both in time and name with the Elebsás of Cosmas, that it induces a conjecture that Cosmas was a monk in the suite of the ambassador (see Photius, p. 6. ed. Geneva, 1612, with the citation of Nicephorus in the margin). But without taking this into the consideration, it is a natural consequence, if Elebsás is proved to be the king of Axúma in that age, that the account of Cosmas is worthy of credit. Bruce adds, that Mahomet in the Korán mentions Dunaanas, not by name, but as master of the *fiery pits*, alluding to the martyrs who were burnt (vol. i. p. 516.). Other authors cited by Montfaucon are Metaphrastus, Callistus, Abúlpharage.

²⁰ Cosmas himself, in another part, describes the country of the Homerites as lying on the coast of Aden beyond the straits; but as they occupy the angle of the continent, their territory may extend both within and without the straits. See Ptolemy, Asia, tab. vi.

tion", which was both on the chair of Ptolemy, and on the tablet, and to send it to him [at Axiōmis].

The governour, whose name was Aibas", applied to me and to a merchant of the name of Menas, to copy the inscription; Menas was [a Greek of my acquaintance, who afterwards became] a monk at Raithû, and died there not long ago. We [undertook the business together, and having completed it,] delivered one copy to the governour, and kept another for ourselves. It is from this copy that I now state the particulars of the inscription, and I ought to add, that in putting them together [and drawing my own conclusions from them,] I have found them very useful for forming a judgment of the country, the inhabitants, and the distances of the respective places. I ought to mention also that we found the figures of Hercules and Mercury among the carvings, at the back of the seat".

This is the form of the seat ^{as} and the marble. And Ptolemy himself [seems to speak in the words of the inscription].

(Here

²¹ It is highly probable, that Elesbaan understood the language, as he was a christian, and of the church of Alexandria. His intercourse also with the Greek emperor at Constantinople strengthens this supposition. And in the earlier age of the *Periplus* we find Zōfakēs master of that language.

²² Asbas and El-Asbas must be the same name, and there is nothing extraordinary in supposing that both the king and the governor might both assume the title, atseba, *the blessed, the saint.*

²³ I have here omitted a conjecture of the monk foreign to the subject.

²⁴ Cosmas says, that malefactors were executed before this chair in his time; but whether it was a custom continued from the time of Ptolemy he could not say. Bruce mentions a stone at Axum existing still, on which the kings of Abyssinia were enthroned and crowned, and which likewise had an inscription with the name of Ptolemy Euergetes. Had either of these facts any concern with a tradition or custom derived from Ptolemy? See Bruce,

- (Here was inserted a drawing by Cosmas himself represented in the opposite plate, and copied from the MS. by Montfaucon.)

Inscription upon the figure or square table in the form of a A.

Ptolemy the Great, king, son²⁵ of Ptolemy, king, and Arsinoë, queen, gods²⁶, brother and sister²⁷; grandson of the two sovereigns Ptolemy, king, and Berenice, queen, gods preservers²⁸; descended

vol. iii. p. 132. It is extraordinary that the marble does not mention Axumā; and more so, if upon the credit of Bruce we conclude, that Ptolemy visited Axumā in person. That indeed does not quite follow from the stone being found there with his name. But one inference we may make in Cosmas's favour, he knew Axumā, he knew it was the capital of the country; if he had forged the inscription, Axumā would doubtless have been admitted.

²⁵ This genealogy at the commencement does not quite agree with another at the conclusion, where the king says, that Mars was the father who begat him (*ὅς μι καὶ ἐγέννησε*). But as these Macedonian sovereigns imitated Alexander in his vanity, if they would have gods for their ancestors, it is not to be thought strange, that their genealogy should fluctuate. I think the inconsistence due to the vanity of the king, and that it ought not to be attributed to the mistake of Cosmas, or to his lapse of memory.

²⁶ In the character of ΘΕΩΝ ΑΔΕΛΦΩΝ, gods, brother and sister, and ΘΕΩΝ ΣΩΤΗΡΩΝ, gods preservers, we have one of the most illustrious proofs of the authenticity of the inscription.

Beger had objected that on the coins of Ptolemy Sōter and Berenice, ΘΕΩΝ only was found; and on those of Philadelphus and Arsinoë, ΑΔΕΛΦΩΝ only. But soon after the

objection was started, two gold coins were brought to light with the united heads of Ptolemy Sōter and Berenice, of Philadelphus, and Arsinoë. The former had no inscription, but the latter displayed the ΘΕΩΝ ΑΔΕΛΦΩΝ, exactly corresponding with the Adulstick marble. Vaillant, Hist. Ptol. Regum, p. 52. ΣΩΤΗΡΩΝ was not found, but an equivalent is cited from Theocritus Idyl. 17.

Μυρτὶ φίλη καὶ παρτὶ θυεῖδας ποστὸν μέρε.
· Εἰ δὲ αὐτὰς χρυσῷ περικαλλίας τὸν ἀλφαρτό²⁹
· Ιδωται, πάντοισιν επιχθωνίου ΑΡΩΓΟΤΣ.

In which they are evidently consecrated as deities with the title of ΑΡΩΓΟΤΣ. Chishull.

A second objection of Beger's was, that Philadelphus had no children by Arsinoë his wife and sister. But the Scholiast on Theocritus Idyl. 17. fortunately furnished an answer to this also, who says that Ptolemy Philadelphus was first married to Arsinoë, daughter of Lysimachus, by whom he had Ptolemy, (afterwards called Euergetes,) Lysimachus and Berenice. But that having discovered this Arsinoë engaged in some conspiracy, he banished her to Coptus, and then married his sister Arsinoë, and adopted as her children those he had had by the other Arsinoë. This Arsinoë, his sister, was worshipped by the Egyptians under the title of Diva Soror, and Venus Zephyritis. Chishull.

²⁵ ΘΕΩΝ ΑΔΕΛΦΩΝ.

²⁶ ΘΕΩΝ ΣΩΤΗΡΩΝ.

on the father's side from Hercules son of Jupiter, and on the mother's side from Dionysus son of Jupiter, [that is, Ptolemy son of Ptolemy and Arsinoë, grandson of Ptolemy and Berenice,] receiving from his father the kingdom of Egypt, Africa, Syria, Phenicia, Cyprus, Lycia, Caria, and the Cyclades, invaded Asia with his land and sea forces, and with elephants from the country of the Troglodytes and Ethiopians. This body of elephants²⁹ was first collected out of these countries by his father and himself, and brought into Egypt and tamed for the service of war. With these forces Ptolemy advancing into Asia³⁰ reduced all the country on this side the Euphrates, as well as Cilicia, the Hellespont, Thrace, and all the forces in those provinces. In this expedition, having captured also many Indian elephants, and subjected all the princes to his obedience, he crossed the Euphrates, entered Mesopotamia, Babylonia, Susiana³¹, Persis, Media, and the whole country as far as

²⁹ A fact noticed by all the historians, and preserved by Agatharchides, as almost the only commerce remaining on this coast in the time of Philomêtore.

³⁰ So very little of this conquest appears in history, that, having this inscription only in Thevenot's work. I had doubted the whole, till I met by accident with the passage in Appian, which confirmed the fact, and again attracted my attention; but having afterwards procured Chishull's work, (Antiquitates Asiatice,) I found he had anticipated this passage, and many of the other observations which I had taken some pains to collect. See Ap. Syriac. p. 635. Schweighæuser's ed. St. Jerom on Daniel mentions these conquests; and Appian notices that the Parthian revolt commenced upon the distress of the Syrian monarchs in this war.

³¹ Rollin touches on this expedition of Ptolemy, but makes it stop at the Tigris, vol. vii. p. 307. but Ptolemy here expressly says he entered Susiana, and as Rollin confesses the restoration of two thousand five hundred Egyptian statues. we may ask, where could they be found except at Susa? The cause of this invasion was the insult offered to Berenice, sister of Euergetes, whom Antiochus Theos had divorced and whom Seleucus, his son by Arsinoë, finally put to death. See Justin, lib. xxvii. c. 1. Justin mentions that he would have subdued the whole kingdom of Seleucus, unless he had been recalled by disturbances in Egypt. The two thousand five hundred statues, and forty thousand talents, I find in the notes on Justin, but whence deduced I know not.

Bactria³², and brought the whole under his dominion. [In Persis and Sufiana] he collected all the spoils of the temples which had been carried out of Egypt by [Cambyses and] the Persians, and conveyed them back again to that country³³, with all the treasures he had accumulated in his conquests, and all the forces which had attended him on the expedition; all these he embarked upon the canals³⁴

* * * * *

³² Ptolemæus Euergetes devicit Seleucum; omnia sine bello et certamine occupavit a Tauro usque in Indiam; Bayer, p. 61. Bayer moderates the conquest, and appeals to Theocritus and the Adulitick marble. But the marble certainly confirms in a great degree the citation, which is from Polyxenus.

³³ It is for this favour to the natives that he is said to have been styled Euergetes, the benefactor.

³⁴ The inscription is here manifestly left imperfect, and that apparently on account of that part of the tablet which was mutilated. We are therefore at liberty to conjecture what these canals were, consistent with the nature of the countries alluded to. Chishull looks to the canals on the Euphrates; but let us reflect, that the palace of Cambyses was at Susa; thither the spoils of Egypt were sent by the conqueror, and there they would be found by Euergetes, if they had not been removed by the Macedonians, or the kings of Syria. Much notice is taken in history of the treasures at Susa being plundered; but the spoils of temples, Egyptian gods and statues had little to tempt the avarice of the conquerors, and would have been moved to little purpose, at a great expence. It is highly probable, therefore, that Euergetes found them still at Susa; and if we consider that Sufiana was of all the provinces of the Persian

empire, the one most furnished with, and most intersected by canals, we shall have no difficulty in concluding, that these eumbrous deities were embarked upon that canal which united the Eulæus with the Mefercan near Susa; and that they were brought by this stream, now called the Suab or Soweib, into the Euphrates near Korna. From Korna they would be conveyed up the Euphrates to Thapsacus, or higher, and require no other land carriage but from that point to the bay of Issus. This would certainly be the best and least expensive conveyance from Susa to Egypt, and there could be no other water carriage unless by the Eulæus to the Gulph of Persia, and so round the continent of Arabia into the Red Sea. If it could be proved from history that the fleets of Euergetes had ever circumnavigated Arabia, we might admit this as the readiest mode of conveyance; but I have searched history in vain to establish this conclusion. If it was contained in the point of the tablet broken, we have much reason to lament the loss; for so persuaded am I of the authenticity of the inscription, that I should admit the fact without hesitation; if found there.' I can only now add, that the canal from Susa to the Euphrates, and the carriage thence up to Thapsacus, afford the most probable clue to this passage.

This, says Cosmas, was the inscription on the figure or tablet, as far as we could read it, and it was nearly the whole, for only a small part was broken off. After that we copied what was written on the chair, which was connected with the inscription already given, and ran thus :

After this, having with a strong hand compelled the tribes bordering upon my own kingdom to live in peace, I made ³⁵ war upon the following nations ³⁶, and after several battles reduced them to subjection.

³⁵ Mark the use of the first person. Whether the change from the third person to the first be caused by Cosmas or the inscription, must be doubtful. We might well suppose both inscriptions to run in the first.

³⁶ Cosmas has many curious particulars of these countries himself; as, 1st. The Homerites are not far distant from the coast of Barbaria [Adel]; the sea between them is two days' sail across. This proves that he places the Homerites somewhere east of Aden on the ocean.

2. Beyond Barbaria [Adel] the ocean is called Zingium [Zanzibar the Caffre coast], and Safus is a place on the sea coast in that tract. This sea also washes the incense country [Adel and Adea], and the country where the gold mines are.

3. The king of Axiomis sends proper persons there by means of the governour of the Agows to traffick for gold. Many merchants join this caravan, and carry oxen, salt, and iron, which they exchange for gold. They leave these articles and retire,—when the natives come and leave as much gold as they chuse to offer. If this is thought sufficient, on their return they take the gold and leave the articles.

This is a very extraordinary passage, as it proves that the Abyssinians traded in that age, as they still do, not by sea, but inland through their southern provinces. And the exchange is similar to modern practice, both on the borders of Abyssinia, and other tribes of Africa. Montf.

4. The winter [that is the rainy season,] in Ethiopia is in our summer; the rains last for three months from Epiphi to Thoth, so as to fill all the rivers and form others, which empty themselves into the Nile. Part of these circumstances I have seen myself, and others I have heard from the merchants who trade in the country.

5. The great number of slaves procured by all the merchants who trade in this country; a trade noticed equally by the Periplūs near 500 hundred years before Cosmas, and by Bruce 1200 years after his age. It is worthy of remark that Abyssinian slaves bear the first price in all the markets of the east, and the preference seems to have been the same in all ages. Montfaucon, tom. ii. p. 144. Nova Col. Patrum.

First the nation of Gazè, next Agamè and Siguè. These I subdued, and exacted the half of their property by way of contribution for my own use³⁷.

After these I reduced Áva and Tíamo or Tziamo, Gambela and the country round it, Zingabénè, Angabè, Tiama, and the Athagai, Kalaa, and Seméné, (a nation³⁸ "beyond the Nile,) among mountains difficult of access, and covered with snow; in all this region there is hail and frost, and snow³⁹ so deep that the troops sunk up to their knees. I passed the Nile to attack these nations, and subdued them.

I next marched against Lásinè and Zaa and Gábala, tribes which inhabit mountains abounding with warm springs; Atalmo also and Bega, these likewise I reduced, and all the nations in their neighbourhood.

After this I proceeded against the Tangaitæ⁴⁰, who lie towards the confines of Egypt; these I reduced, and compelled them to open a road of communication from this country into Egypt. The next tribes I subdued were Anninè and Metinè, who were seated upon mountains almost perpendicular; and Sesea, a tribe which had

³⁷ Αλλ' αὐτοῖς πάντα δίστριψεν. Hom. x. p. 120. The Homeric custom of taking half and leaving half.

³⁸ Ἀργυρὸν τὴν πέρι τῆς Νίου, which Montfaucon reads in a parenthesis, as no part of the inscription, but as an observation by Cosmas. But the fact is true, Samen is beyond the Tacazzè.

³⁹ Bruce utterly denies the existence of snow in Abyssinia; but it does not quite follow from this that snow was unknown in former ages. Horace says, *Soracte stat nive candida*, but the moderns observe this now never happens. Lobo asserts that snow falls in Samen

on Sámenè, but in very small quantities, and never lies, p. 578. Fr. ed. Bruce calls Lobo a liar, but in many instances not without manifest injustice. He allows himself that Samen is a ridge eighty miles in extent; the highest part is the Jews' rock, where there was a kingdom of Jews till within these few years.

⁴⁰ If it were possible to identify this tribe with Dangola, it would be a great acquisition to geography. Dangola lies exactly in the proper place, as may be seen by Bruce's map.

retired to a mountain absolutely inaccessible to an army ; but I surrounded the whole mountain, and sat down before it, till I compelled them to surrender ; I then selected the best of their young men, their women, their sons and daughters, and seized all their property for my own use.

My next attempt was upon Rauso, an inland tribe in the frankincense country, a region without mountains or water ; [from this tract I penetrated again to the coast, where] I found the Solatè, whom I subdued, and gave them in charge to guard the coast [from pirates].

All these nations, protected as they were by mountains almost impregnable, I subdued, and restored their territories to them upon conditions, and made them tributary ; other tribes submitted also of their own accord, and paid tribute upon the same terms.

Besides the completion of this, I sent a fleet and land forces against the Arabites⁴¹, and the city of Kinedópolis on the other side of the Red Sea ; I reduced both to pay tribute, and gave them in charge to maintain the roads free from robbers, and the sea from pirates⁴², subduing the whole coast from Leukè Komè to Sabêa. In the accomplishment of this business I [had no example to follow, either of the ancient kings of Egypt, or of my own family, but] was the first to conceive the design, and to carry it into execution.

⁴¹ Arabians.

⁴² The coast of Arabia, north of Yambo, has been notorious for pirates and robbers in all ages. Leukè Komè, or the White Village, we shall fix when we come to the coast of Arabia in the third book ; it cannot be far from Yambo ; and the coast from this village to Sabêa or Yemen was the seat of all the

trade from Egypt, both for native and Indian commodities, till the Romans were masters of Egypt. The Romans had a garrison in Leukè Komè, and a custom-house, where they levied 25 per cent. on all goods. See *Periplùs Maris Eryth. p. 11.* Huds. Leukè Komè seems, in the time of Cosmas, to have fallen into obscurity.

For my success in this undertaking I now return my thanks to Mars, who⁴³ is my father, and by whose assistance I reduced all the nations from [Bactria on] the north, to the Incense coast on the south; and from Libya [on the west,] to Ethiopia and Sufus⁴⁴ on the east. Some of these expeditions I entrusted to my officers; but in most of them I was present, and commanded in person.

Thus having reduced the whole world⁴⁵ to peace under my own authority, I came down to Adulè, and sacrificed to Jupiter, to Mars, and to Neptune, imploring his protection for all that navigate⁴⁶ [these seas].

⁴³ "Ος με καὶ ἵγιετο, the father who begot me. It is a remarkable expression. He has already said he was the son of Ptolemy and Arsinoë, descended from Hercules and Dionysus, and now Mars is his immediate father. Whatever vanity there may be in the sovereigns, or flattery in the subjects, there is still something analogous in these Macedonian genealogies. Alexander is not the son of Philip, but of Jupiter Ammon. His courtiers, and the family of his courtiers, follow the example of their monarch. They are gods and sons of gods, Θεοὶ βασιλεῖς, Θεοὶ Σερῆνες. The presumption is rather peculiar, for we may say to every one of them, Matris adulterio patrem petis.

⁴⁴ From Abyssinia to the Bay of Zeyla. Sufus is manifestly a place on the coast of Adel.

⁴⁵ The whole world is assumed by many conquerors for the world around them. Alexander and the Romans did not conquer the whole world, but used the same language.

⁴⁶ Τυρὴ τὸν πλωμάζοντα.

It appears fully from this passage that Euergetes engaged in this expedition on the plan of his father Philadelphus, for the extension and protection of commerce, and that

he awed the whole coast on both sides the Red Sea, making them at least tributary, if not a part of his kingdom: but it nowhere appears that he passed the Straits of Bab-el-Mandeb. Though he visited the Mosyllitick marts, his approach to them was not by sea, but through the interior of Abyssinia and Adel, as appears by his march from Rauso to Solatè, which must be on the coast, from his giving it in charge to the natives to preserve the peace of the sea. The execution of these designs, with the opening a communication inland from Abyssinia to Syène, marks the grandness and wisdom of his system, as clearly as if we had a history of his reign, and a detail of his expeditions. Of the latter there is not a trace remaining but this monument. It is still more extraordinary, that in less than seventy years all the notice of this expedition should have sunk into silence, and that Agatharchides should say nothing of this plan, but so far as relates to the elephants procured at Ptolemaïs Thérôn. Can this be adduced as an argument against the reality of the marble? I think not; and I trust it to its internal evidence.

But if the authenticity of the marble be allowed, what light does it not throw on the boasted.

seas]. Here also [at Adulè] I reunited all my forces, [which had been employed on both coasts of the Red Sea,] and sitting on this throne, in this place, I consecrated it to Mars, in the twenty-seventh year of my reign⁴⁷.

Abyssinian names of Places in the Inscription. Consult Bruce's Map. vol. v. and Ludolfus, p. 14.

Gaza. Gecz? but dubious, as it is one of the places first mentioned, and Geez is very far inland; Montfaucon. Pliny's Gaza near Mosyllon is noticed by Chishull; but these places in the commencement seem all between the coast and the Tacazze, or its neighbourhood.

boasted discoveries of the Ptolemies? It proves, that whatever might be the progress of Timosthenes down the coast of Africa in the reign of Philadelphus, that no commerce was established upon it in the reign of his son. It proves that the Greeks of Egypt did not yet trade beyond the straits, or on the Mosyllitic coast, though they meditated the attempt. It proves that they did not yet go to Aden, but traded to Yemen within the the straits; and that one object of this expedition was to clear the Arabian coast of pirates, from Leuke Komè to Sabèa; that is, from the top of the Gulph to the bottom. In the whole account not a word escapes that implies a trade with the parts of Arabia on the ocean beyond the straits, nor does it afford any reason to believe that the continent of Arabia was yet circumnavigated, or the discoveries of the Ptolemies brought in contact with those of Alexander.

This has been my inducement for introducing this marble to the knowledge of the reader, agreeably to my design of tracing the discoveries of the ancients step by step; and I conclude this account with remarking, that commerce rather fell short than proceeded in the following reigns; for it stopped at Sabèa on the Arabian side, as it does in this marble, and on the African side it did not go so low in the reign of Philometor as in that of Eugetes.

⁴⁷ Chronologers assign 26 years to the reign of Eugetes. But if a king commenced his reign in June, for instance, and died in October, it might be 26 years in a chronicle, and yet the 27th would have commenced. Chishull supposes this to be the fact. Dodwell supposes Eugetes to have been crowned during his father's life time; and we add, that an error (if it is such) in numbers may be more readily imputed to a MS. than made to impeach the marble.

Agamè.

• Agamè. A government in Tigrè; Montf. Ludolf. p. 17. Agam signifies Jessamine; Bruce.

Siguè. Bruce mentions Zagùè as a province, vol. ii. p. 534- else it might be thought Tigrè, from the places mentioned with it; or Siguè for Sirè; Σιγυη, Σιρη.

Ava. The province between Adulè and Axuma. Nónnosus; Chishull. Axuma is in the province of Tigrè. Ava is still found as a district of Tigrè.

Tiamo or Tziamo. Tzama a government of Tigrè near Agame; Montfaucon. It seems to be the kingdom of Damot. But there is a Tzama in Begemder; Ludolf. p. 14.

Gambêla, Gámbela. There is a Gaba noticed by Ludolf, but nothing to mark its relation to Gámbela.

Zingabénè. The country of the Zangues, Zinguis, or Caffres.

Angabè, read Anga-bénè. The kingdom of Angot.

Tiamaa. Tiamaa, Vatican MS. Tigrè-mahon! a mere conjecture. But Mahon, Macuonen, signifies a governor or government; Ludolf. p. 20. It is idle to search for an equivalent, as it is possibly only a repetition of Tiamo.

Ath-agai, Agoa; Montf. Agows; Bruce.

Kalaa. Nothing occurs but the mention of it with Seménè.

Seménè, Samen, Semen. Montf. The Tacazze is the boundary between Samen and Sirè; Bruce, iii. p. 252. The snow mentioned in

ip the Inscription is denied by Bruce, but the mountains, eighty miles in length, are acknowledged by him ; Ibid. And the Inscription mentions passing the Nile (Tacazzè) to Semène.

Lafinè. Still so called ; Cosmas ; Lafta.

Zaa. Still so called ; Cosmas. Xoa, Shoa, or Sewa ; Ludolf.

Gabala. Still so called ; Cosmas. There is a kingdom of Bali in Ludolph, p. 14. and a Gaba, p. 15. but nothing certain.

At-almo. Lamalmon the great mountain. At, seems to be an article or prefix, as in Ath-agai.

Bega. Beja and Begeimder are still two provinces of Abyssinia.

Tangaitæ. Vossius reads Pangaitæ, in order to prove that Panchiaia the Frankincense country is not in Arabia but Africa ; Vos ad Pomp. Mel. lib. iii. c 8. Chishull. But the Tangaitæ are a tribe between Abyssinia and Egypt, i. e. at Sennaar, Dongola, or Meroë, most probably at Sennaar or Dongola. Dongola is written Dangola, not unlike Tanga. But whether Dangola is an ancient name I cannot discover.

Metinè, Anninè. Nothing occurs to ascertain these places. The Inscription passes from the northern frontier of Abyssinia to the southern with these names between, noticing only that they are mountainous.

Sésea. Barbaria, coast of Adel ; Cosmas. Apparently on the mountains which divide Adel from Abyssinia. See Bruce, vol. iii. p. 250.

Rauso. Barbaria ; Cosm. According to the Inscription itself it is inland from the frankincense coast of Barbaria (Adel), and Solatè is on the coast.

Solatè. Barbaria; Cosm. These three places correspond in number with the three on the Mosyllitick coast mentioned in the Periplùs. The modern maps have a Soel.

Arabites. Homerites; Cosmas. But Cosmas is in an error. The Homerites are on the ocean ; these are the Arab tribes on the coast of the Red Sea opposite to Suakem and Abyssinia, as appears by the Inscription.

Kinédópolis. Homerites ; Cosmas. But Cosmas is mistaken. It lies on the coast of Arabia not far from Yambo, between Leukè Komè and Sabêa, agreeably to the Inscription itself. See Ptolemy, Asia ; tab. vi.

Pirate Coast. Not noticed as such, but their piracies marked. Probably the Nabathéans or wild tribes above Yambo, always pirates, and subdued by the later Ptolemies and by the Romans. They are pirates at this day.

Leukè Komè. Leukogen, in the country of the Blémmyes ; Cosmas. Another proof that Cosmas could not be a forger, for Leukè Komè is in Arabia, above Jidda, and he places it in Ethiopia. It is the Hawr of d'Anville.

Sabēa. The Homerites; Cosmas. But really Yemen, the Arabia Felix of the ancients.

Safus. At the extremity of Ethiopia where gold called Tancharas is obtained. It lies upon the same ocean as Barbaria (Adel), where frankincense is procured; Cosmas. By Ethiopia he means Abyssinia, and Safus must be near Zeyla.

Adūlē. The port of Abyssinia in the Bay of Masuah.

No. III.

ΕΙΤΕΝΗΔΙΟΜΜΕΝΟΤΘΕΣΙΑΣ.

THE readings of this extraordinary polysyllable are as numerous almost as the editions, and the authors who have had occasion to cite it. The corruption is evident to all, but no two agree in the correction.

The whole passage stands thus :

Μεθ' ὅν, ποταμὸς πλέιονες, καὶ ἄλλοι συνεχεῖς ὄφραι, διηρημέναι κατὰ σαθυμέδης καὶ δρόμους ἡμερησίους πλέιες, τὰς πάντας ἐπτὰ, μέχρι Πυραλάω⁴³ νῆσου, ΚΑΙΝΗΣ ΛΕΓΟΜΕΝΗΣ ΔΙΩΡΥΤΧΟΣ, ἀφ' ἧς μικρὸν ἐπάνω ΤΟΥ ΛΙΒΟΣ, μετὰ δύο δρόμων νυχθυμέρεος, παρὸ ΑΥΤΗΝ ΤΗΝ ΔΥΣΙΝ ΕΙΤΕΝΗΔΙΟΜΜΕΝΟΤΘΕΣΙΑΣ ἀπαντᾶ νῆσος.

Salmasius reads παρὸ ἀυτὸ τὸ Πράστον ἄκρον εἰς ᾧ Μενυθίας ἀπαντᾶ νῆσος. Blancard follows Salmasius, but in this correction, τὸ Πράστον ἄκρον is assumed without a shadow of resemblance, and is as wrong in point of geography as criticism. The Menuthias of the Periplūs has no reference to Praenum whatever; and the mistake of Salmasius arises from supposing that the Menuthias of Ptolemy and the Periplūs are the same, which they certainly are not.

Others read,

"Εἰτε Μενυθίας ἀπαντᾶ νῆσος.

"Εἰτε νὴ δὶ ᾧ Μενυθίας ἀπαντᾶ νῆσος.

⁴³ The Basil edition reads ιπ' αὐτῷ Πυραλάω.

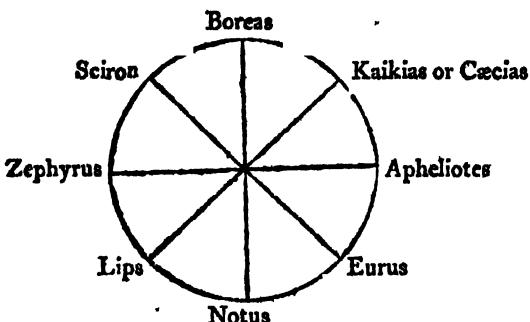
Henry Jacobs, in Hudson's Minor Geographers, vol. iii. p. 68. reads,

'παρ' αὐτὴν τὴν δύσιν ἔις τι νότιον Μενεθίας αἴπανταῖ νῆσος.

But Henry Jacobs adds also, that Praenum is not Mosambique but the Cape of Good Hope. He can find no authority for this, but the estimate of Marinus, and Marinus himself corrects his excess, and reduces his latitudo of 34° south to $23^{\circ} 30' 0''$. See Ptol. lib. i. c. 7.

Impressed with the appearance of these difficulties, I venture on the following discussion with no common uncertainty ; and little practised as I am in the science of correction, I decline the grammatical and critical part of the inquiry, and wish to confine my reflections almost wholly to what is purely local and geographical.

I. First then it is to be observed that our author has certainly not more than eight^{**} quarters of the heavens, or as we should say in modern language, eight points of the compass, the same number as is marked upon the eight fronts of the Temple of the Winds at Athens, under the following appellations :



^{**} It is not intended to say that the whole not more than eight. It uses Aparctias for eight occur in the Periplūs, but that it has the north, Dufis for the west.

In the application of these, or the terms equivalent to these, the Periplūs is by no means accurate; of this we have a direct proof in laying down the coast at Arōmata, and in its neighbourhood, where, if our charts are accurate, as they are generally at least, it is impossible to apply the points of the Periplūs to the actual state of the coast.

II. Secondly, let us examine the points of the compass specified by the author in this passage, and his manner of expressing them; these are ἐπάνω τῷ Αἰγαῖος, or ἐπ' ἀνα⁵⁰, and παρ' αὐτῷ τῇ δύσιν, answering to the west and south west in the foregoing figure; and here it is observed, that ἐπάνω, or ἐπ' ἀνα τῷ Αἰγαῖος, is not known as a Greek idiom. But let us suppose it to be a nautical phrase, how is it to be interpreted? Africum versus à superiori parte? Altius quam Africus? Above the south west? If this has a meaning in Greek what is to be understood by *above*? Is it more to the south or more to the west? that is, is it south-west by west, or south west by south? The difficulty which occurs here, induces Dr. Charles Burney, of Greenwich, to discard the expression and to read ἐπ' ανατολήν, for ἐπάνω τῷ Αἰγαῖος.

In the next place how are we to understand παρ' αὐτῷ τῇ δύσιν? Παρὰ, according to the lexicons, has a sense of motion to a place. In which form it might be rendered directly to the west, to the *west direct*. The general usage for this in the Periplūs is εἰς Νοτον, p. 7. εἰς ανατολήν, ibid; but in p. 9. almost immediately preceding the passage before us, παρ' αὐτὸν ἥδη τὸν Αἰγαῖο seems to express the direction⁵¹ of the

⁵⁰ Ἐπάνω with a genitive is in common use, but whether it can be used with a wind, or in what sense, is dubious. Ἐπάνω τῷ τείχισματος, above the firmament, is a known idiom.

juxtaposition, or side by side, as παραγός, παραπλήσιας. See Odys. E. 418. 440. νότος παραπλήσιας, where the waves do not break directly against the coast, but run along the side of it.

⁵¹ The primitive sense of παρά, seems to be

coast lying south west and north east as we should express it in English, or the course of a vessel along the coast in a south west direction.

III. Thirdly, we must inquire how these expressions can be applied in any of their senses to the actual geography of the coast and island ; and here I *assume* Menûthesias or Menûthias for one of the Zanguebar islands, from the distance specified, which is at thirty stadia from the coast, equal to eight or ten miles, and corresponding with the distance of no other islands in this part of the voyage. Of the three Zanguèbar islands, Monfia the third, or southernmost may well be preferred from the account of distances in the Periplûs, both previous and subsequent. And if we assume Monfia, our next inquiry must be, how this lies with respect to the coast ; the chart will shew that it lies directly east. A sufficient cause to justify the reading of Dr. Charles Burney, of ἐπ' ἀντολὴν, for ἐπάνω τῷ Λιβός. But let us try if ἐπάνω τῷ Λιβός has a meaning, how it could be applied. I have assumed Mombaça for the Pyraláan islands, or rather for the Καινὴ διώρυξ, the new canal¹². The vessel is plainly setting out from this point, [καὶ τῆς καινῆς λεγομένης διώρυχος, αφ' ἧς μικρὸν ἐπάνω τῷ Λιβός,] that is, from Mombaça, and going down to an island eight or ten miles distant from the coast. The coast itself runs south west, but if she is to stand off the coast for the island, she runs not south west, but more towards the south than south west. Now this is actually the course a vessel must hold to run from Mombaça to Monfia. It would not be south direct, but a little to the south of

¹² The proofs will be found p. 153. et seqq. supra.

south west. If therefore *πάνω τῷ Αἰγαῖος* can be made a Greek idiom, or a Greek nautical phrase, this I conclude is the only interpretation it could bear. It must be noticed likewise, that this expression must be applied to the course of the vessel, as *παρ' αὐτὴν τὴν δύσιν* must apply to the position of the islands, it is joined with *μετὰ δύο δρόμων νυχθημάσους*, as *παρ' αὐτὴν τὴν δύσιν*, is joined with *απενηδιωμέναις Τερίας ἀπαντῆ υῆσος*.

What then is *παρ' αὐτὴν τὴν δύσιν . . . απαντῆ υῆσος*? That I have scarce the hardiness to say. *West* it cannot be, for whatever lies west from Mombaça, or any point on the coast, must lie inland on the continent of Africa. Neither can it signify the island itself lying east and west, or the three islands taken together, for they lie nearly north and south. This reduces a commentator to his last resource, which is either to say that *δύσιν* is a false reading, or to find another sense for it, if it must be retained. I confess this dilemma most candidly, and have no more confidence in the following suggestion, than just such as the reader shall please to give it.

I do not discard *δύσιν*, but give it another sense, as the only alternative left to my choice. It has been noticed in the preceding work that *δύσις* and *ἀνατολή*, besides their literal meaning of west and east, have likewise a relative sense given to them by mariners, in which they are applied to the general tendency of the voyage rather than to the quarters of the heavens, in regard to the ship's place, or the individual point where the mariner is at the moment he is speaking. It is owing to this that when a vessel is proceeding from Mosambique on her voyage to India we read in her journal that she sailed to the eastward, though undoubtedly her course was north or north east; or if she is proceeding to the Cape, it is said she sailed

to the westward, though her course is certainly south or south-west. An expression adopted on our own coast⁵³ also, and perhaps on every other; and I can now shew that this is the language of the Periplūs beyond dispute; for (at p. 35.) when the author is describing the passage round Cape Comorin he has these words, περὶ δὲ τῶν μετ' αὐτὴν [Λιμυρίκην] χωρῶν, ἥδη πρὸς ανατολὴν τῷ πλοὸς ἀπονεύοντος, εἰς πέλαγος ἔκκειται πρὸς αὐτὴν τὴν ΔΥΣΙΝ; οὗσος λιγομένη Παλαισμοόνδος, παρὰ δὲ τοῖς αρχαῖοις αὐτῶν Ταρπούνη; that is, "When the course " takes an inclination to the east round the coast, [for on that part of " the coast] which succeeds to Limyricè, there lies out at sea directly " to the west [south] an island called Palæsimoondoo, [by the " natives,] but which their ancestors used to call Taprobana." The expression here is precisely the same, except that it is πρὸς αὐτὴν τὴν δύσιν, instead of παρὰ αὐτὴν τὴν δύσιν. Πρὸς intimating, as I conceive, the point of the compass, and παρὰ the course of a vessel in that direction. And if we now ask, what is the meaning of Δύσιν, the map will shew in an instant, that Ceylon does not lie WEST from the continent but SOUTH. It is on this evidence that I wish to render Δύσιν south, in the passage before us, remarking that the three Zanguebar islands lie directly SOUTH from Mombaça. If this be rejected, I do not see how to find any application for the term *west*, in relation to any part of the coast, or to any other island in the neighbourhood.

IV. We come now to the word which is the cause of all this speculation, and in Ἐγενδιαμμενοθεσίας all the commentators are agreed, that Menuthias in some form or other is to be collected out

⁵³ The trade to the Baltick is always called the East Country Trade.

of the latter part of the polysyllable. I should have wished to consider Menûthias as an adjective rather than a substantive, Menuthesian rather than Menuthias. In *νηδίωμ* I am led to *νησίων*, both by the context and the letters, for *νηδίωρ* is *νηδίων* in the writing of MSS., and *ν* is often turned into *μ*, not merely by an error of the copyist, but by coming before another *μ*. If this be allowed, the change of *δ* into *σ* seems to give *νησίων* with great facility.

Let us then examine what the geography requires. It requires that Menûthias, if it is Monsia, should be described as *one of the three Menûthesian or Zanguebar islands*, or it should be described as *the southernmost of the three Menûthesian or Zanguebar islands*. This is the sense I want to elicit from the corruption; and with as little change of the form as possible, I propose the following conjectures:

Παρ' αὐτὴν τὴν δύσιν τῶν νησίων Μενυθεσίων, ἀπαντᾶ νῆσος.

Παρ' αὐτὴν τὴν δύσιν ἐν ἐκ τίνων [or εκ τριῶν] νησίων, Μενυθεσίας ἀπαντᾶ νῆσος.

But the form I prefer is,

Παρ' αὐτὴν τὴν δύσιν ἥδη τῶν νησίων, Μενυθεσίας ἀπαντᾶ νῆσος, or

Παρ' αὐτὴν τὴν δύσιν ἔτι νησίων [or νησιδίων ἀπάντων] Μενυθεσίας ἀπαντᾶ νῆσος.

In which case *ἀπάντων* may have been dropped by the repetition of *ἀπαντᾶ*. And in these several readings I should refer *νησίων* to the Pyralaan islands immediately preceding, and interpret the passage thus:

Almost directly south then of the [Pyralaan] islands you meet with the island Menûthesias, the last of all the islands.

"*Ηδη*⁵⁴ is a particle frequently used in this manner by the author, and occurs in this very page, *παρ' αὐτὸν ἡδη τὸν Λίσα*, but if the letters are to be regarded, perhaps *παρ' αὐτὴν τὴν δύσιν ἔτι νησίων Μενεθεσίων*, *απαντᾶ νῆσος*; or, *παρ' αὐτὴν τὴν δύσιν ἔτι νησίων [Πυραλάων] Μενεθεσίων απαντᾶ νῆσος*, approach nearer to the form of writing than any others, that will bear a sense of any sort.

I am sensible that it is no true canon of criticism to bend the words to the sense we wish to find; I confess freely I am not satisfied with any of these corrections, for in this very page the author uses *εἰς τὸν Νότον* for the south, and *παρ' αὐτὸν ἡδη τὸν Λίσα* for the south west; and it is not easy to conceive why he should have used *δύσιν* here instead of *νότον*, if it were to signify the same point. The only defence I can make, is, to repeat, that no island on the coast can lie west from the coast, and if it is west from any other place, that place I cannot discover⁵⁵. I submit, therefore, the whole of this discussion to the candour of the reader, and those more practised in critical corrections, with some confidence that if I have not completed the solution of the difficulty, I may have afforded grounds for future commentators to proceed on.

⁵⁴ "ιδη is easier to conceive than to render; Abhinc in passages of this construction follows more readily than mox, continuo, &c. but it is better rendered by *nearly*; ιδη δὲ νημέζει, it was *juli* day.

⁵⁵ The only possible relation in which I can conceive δ. ν. to be employed, is, in regard to the ship's course when she is running down the *western* side of the Zanguebar islands. But such a course would never be expressed by

παρ' αὐτὸν τὴν δύσιν, in the language of the Periplūs; for if it were, the course down the coast of the main, opposite to Zanguebar must then be expressed by *παρ' αὐτὸν τὴν ανατολὴν*, as the ship is going down the eastern side of the continent; but this is not so expressed, it is *παρ' αὐτὸν ἡδη τὸν Λίσα*, in which the direction of the course is marked, and not the ship's course on the eastern shore.

I now read the whole passage thus:

Hudson.

Proposed Text.

Translation.

"Εσ' ὁ Νίκαιος· μεθ' ὅν, παταμοὶ πλίους; καὶ ἄλλοι συνιχέων, διηρημένοι κατὰ γαζμός; καὶ ξύριμοι πηγεστοῖς; πλίους; τοῦ πάντας ἐπτά, μέχρι Πυραλαίων⁵⁶ Νήσων⁵⁷, Καινῆ; λεγομένης Διώρυχος; ἀφ' ἧς μηχεὸν ἐπάνω⁵⁸ τὴν Λιβός⁵⁹, μετὰ δύο δρόμους νυχθμίσεων, παρ' αὐτῶν τὴν δύσιν Επιστινδιμανιαβδεσίας; ἀπαντῷ Νήσος; γαδίων ἀπὸ της γῆς; ωσὶ τριακοσίων, ταχειών καὶ κατάδιπλος.

.... "Εσ' ὁ Νίκαιος· μεθ' ὅν, ποταμοὶ πλίους; καὶ ἄλλοι συνιχέων; διξι; ξύριμοι, διηρημένοι κατὰ γαζμός; καὶ δξιμοὶ πηγεστοῖς πλίους, τοῦ πέντε; ἐπτά, μέχρι Πυραλαίων Νήσων, καὶ τῆς Καινῆ; λεγομένης Διώρυχος. Ἀφ' ἧς μηχεὸν ἐπάνω τὴν Λιβός, μετὰ δύο δρόμων νυχθμίσεων, παρ' αὐτῶν τὴν δύσιν ἐπὶ [την] θαλάσσην, Μενύθειας ἀπαντῷ Νήσος, γαδίων ἀπὸ τῆς γῆς ωσὶ τριακοσίων, ταχειών καὶ κατάδιπλος.

.... Next succeeds the anchorage of Nicæon, and after that, several rivers and other anchorages in succession, distributed into corresponding courses of one day each, which amount to seven altogether, terminating at the Pyralaan islands, and the place called the new canal. From the new canal the course is not directly south west, but something more to the south; and after two courses of twenty-four hours [in this direction,] you meet with the island Menuthias, lying almost directly south from the [Pyralaan] islands, at the distance of about thirty stadia from the continent. Menuthias itself is low and woody.

If the question were now asked, whether I am satisfied with this interpretation myself, I could not answer in the affirmative, for the sense I wished to obtain was, that Menuthias was the most southerly of the Menuthesian islands; and this fact I am not able to extract from any position of the words, or any restoration of the passage which I have to propose. I shall therefore only add some emendations of the passage proposed by Dr. Charles Burney, who, however, still doubts whether they ought to be deemed completely satisfactory. If his correction should meet the opinion of the learned, I shall subscribe without hesitation to his restoration of ἐπ' αἰνατολὴν for ἐπάνω τῷ Λιβός, and have little scruple in embracing his reading of

⁵⁵ Var. Lect. Πυραλάων. Basil.

⁵⁶ Ἐπ' αἴνω. Basf.

⁵⁷ Καὶ τοῦ καινῆς. Burney.

⁵⁸ Επ' αἴνωλην. Burney.

παρ' αὐτὴν τὴν δύσιν διατένεστα ἡ Μενεθίας, . . . if δύσιν may be rendered SOUTIIL.

Observations by Dr. Charles Burney.

Περίπλους τῆς Ἐρυθρᾶς θαλάσσης. Edit. Princ. Basilex. Quarto. 1533. p. 20. l. 30.

1. "Ορμοὶ, δηρημένοι καὶ σταθμὸν καὶ δρόμος ἡμερησίου πλείους,
2. τοὺς πάντας ἐπῆ, μέχρι πυριλάων νήσων, καὶνῆς λεγομένης διώρυχος.
3. αφ' ἣς μικρὸν ἐπ' αὖτα τῷ λιβός, μεῖψα δύο δρόμους νυχθημέρας, παρ'
4. αὐτὴν τὴν δύσιν ἐπενδιωμένουθευσίας ἀπαντᾷ νῆσος ἀπὸ σταδίων τῆς
5. γῆς ὥστε τριακοσίων, ταπεινὴ καὶ κατάδενδρος.

In editione Blancardi, Amstel. 1683, in octavo, p. 151. l. 4—14.

L. 2. Πυριλάων. L. 3. Ἐπάνω.

L. 3. 4. Νυχθημέρας, παρ' αὐτῷ τῷ Πράσον ἄκρον εἰς ἔω Μενουθίας ἀπαντᾷ νῆσος, σταδίων ἀπὸ τ.

In editione Hudsoni, Geographiæ Vet. Scriptores Græci Minor. vol. i. p. 9. l. 26.—p. 10. l. 2. [“]

L. 2. Πυριλάων. L. 3. Ἐπάνω.

L. 4. 5. Σταδίων ἀπὸ τῆς.

L. 2. Μέχρι Πυριλάων νήσων, καὶνῆς λεγομένης διώρυχος.

It is surprising, that all the editors should have passed over this passage, which is wholly unintelligible; nor will the supposition of

[“] The references in these remarks are made to Hudson's edition.

τῆς νήσου being understood, between μέχρι and Πυριλάων, remove the difficulty, of which you appear to have been the first observer. Καινὴ διώρυξ, as you remark, would, indeed, be an odd name for an island.

The article is improperly omitted, in the latter part of the sentence. Hence the passage may be thus read :

Μέχρι Πυριλάων νήσων, καὶ τῆς καινῆς λεγομένης διώρυχος.

The word καινῆς has absorbed καὶ τῆς, which might easily happen, from the similarity of sound, and accent on the final ἑς.

L. 3. αὐθ' ἦς μικρὸν ἐπάνω τῷ Λιβός, μελάδύο δρόμους νυχθημέρους, παρ' αὐτὴν τὴν δύσιν —

¹Ἐπάνω τοῦ Λιβός, on account of the intervention of μελάδ. δ. νυχθημέρους, cannot possibly be connected with παρ' αὐτὴν τὴν δύσιν, nor would these terms, if they could be united, explain the situation of the island Menūthias. Instead of ἐπάνω τῷ γλ. Λιβός, read, ἐπ' αὐτοληήν, which precisely expresses the position of Menūthias, with respect to the new canal, or ἡ καινὴ διώρυξ, on the coast of Africa.

To remove all doubt about the truth of the correction, the words of Ptolemy may be adduced :

"Ω (ἀκρογηίῳ, τῷ Πράσῳ) παράκειται ἀπὸ θερινῶν αὐτολῶν νῆσος, ἣ ὄνομα Μενούθιας, p. 131.

It may also be mentioned, that Λιψ is the name of a wind; and not of the coast, over which *Africus* blows. What possible explanation

explanation then can be given to ἐπάνω τῶν λίσος?—The terms θερμαὶ τροπαὶ καὶ χειμεριναὶ, in Aulus Gellius, ii. xxii. p. 210. edit. Conrad. may illustrate Ptolemy's απὸ θερμῶν ἀναθολῶν.

I. 4. Παρ' αὐτὴν τὴν δύσιν ἐγενηδιωμεμενουθευσίας ἀπαντᾷ νῆσος απὸ σταδίων τῆς γῆς ὡσεὶ τριακοσίων.

In the latter part of this portentous word, ἐγενηδιωμεμενυθευσίας, Salmasius acutely discovered the name of the island Menūthias; but it is impossible to assent to his change of παρ' αὐτὴν τὴν δύσιν ἐγενηδιωμ, into παρ' αὐτῷ τὸ Πρασόν ἄκρον εἰς ἔω. It does not appear, that the author of this Periplūs was acquainted with the Promontory of Prasum; and it is certain, that he never uses εἰς ἔω, but ἐπὶ, εἰς, or πρὸς, ἀναθολὴν, for *Orientem versus*. The new reading also does not sufficiently resemble the old, for it to have just claims to admission.

Henricus Jacobius is still more unfortunate in his conjecture—
δύσιν εἰς τι νότιον Μενουθιὰς α. νῆσος. This author, indeed, has, p. 27. l. 26. καὶ τὰ νότια τῆς Ἰνδικῆς—, but this will not vindicate εἰς τι νότιον, nor will κατὰ τι δίκτιον ἀρχᾶιον, *antiquo quodam jure*, in p. 10. l. 23. nor in p. 20. l. 3. ημέρας καὶ πολύ τι βλέποντες, if the passage be found, defend this usage of τι with νότιον. This author, indeed, has, p. 7. l. 34. εἰς τὸν νότον, and again, p. 9. l. 14. so p. 11. l. 16. κατὰ τὸν νότον, and p. 12. l. 32. παρ' αὐτὸν νότον,—but τι νότιον is unexampled in this Periplūs.

As to ἐν τῶν νησίων Μενουθεσίων, or Μενουθεσίας α. νῆσος, it is harsh to admit ἐν, and not agreeable to the usage of the Periplūs.—Ἐστι νησίων Μενουθεσίας, would occasion the omission of two words, απαντᾷ νῆσος, as you observe; which would greatly invalidate the conjecture,

ture, even if the following *ταπεινὴ* did not render it inadmissible.—It is right to state, that the word *νησίον* occurs in this *Periplūs*, p. 22. l. 10. *πρόκειται—αὗτη ησίον μηρόν.*

Salmasius appears, as has been mentioned, to have rightly traced the name *Μενουθίας*, in the latter part of this strange word. In the former, *έγενηδιωμ*, seem to be discoverable the disjoined traces of *διάχεινοσα ἡ*. The letters are strangely jumbled; but it is to be recollectcd, that in the very next line, where Hudson gives *σταδίων* *ἀπὸ τῆς*, the editio Princeps has *ἀπὸ σταδίων τῆς γ.*

Let the author himself defend this restitution. First, for *διατείνουσα.*

P. 5. l. 16. *ἐπ' αναλογίᾳ—διατείνει.*

P. 6. l. 17, *ἀκρωτηρίῳ τῷ ἐξ αναλογῆς, ανατείνουσι, &c. &c.*

To conclude, the whole paſſage ſhould probably be read thus:

"Ορμοί, διηρημένοι καὶ ἀστέριστοι καὶ δρόμοις ήμερησίους πλείους, τοὺς πάντας ἐπίτι, μέχει Πυριλάων νήσων, καὶ τῆς καυνῆς λεγομένης διώρυχος· ἀφ' ἣς μικρὸν ἐπ' ανατείλῃ, μετὰ δύο δρόμοις νηχθημέρους, παρ' αὐτὴν τὴν δύσιν διατείνουσα, ἡ Μενουθίας απαντᾷ νῆσος, σταδίων ἀπὸ τῆς γῆς ὥστε τριακοσίων, ταπεινὴ καὶ κατάδενδρος.

No. IV.

ANCIENT MAPS *of the World.*

THREE plates are here presented to the observation of the reader, two of which are original, from Cosmas Indicopleustes, and Al Edrissi, and the third is drawn up by Bertius, for the Variorum edition of Pomponius Mela, by Abraham Gronovius, 1722.

I. Pomponius Mela, as earliest in point of time, requires our consideration first, and in this map it will be seen with what propriety the ancients called the extent of the earth, from west to east, length, and the extent, from north to south, breadth. Artemidorus⁶¹ (104, A. C.) is said by Pliny to have first employed the terms of length and breadth, or longitude and latitude. The dividing of these into degrees, and degrees into their parts, was not effected fully before the time of Marinus, nor brought into practice before Ptolemy. But our present inquiry is confined to the appearance of the earth, and here the great object which strikes our attention is the vast southern continent or hemisphere, placed as it were⁶² in counter-balance to the northern. The form in which it here appears seems as if the ancients had cut off the great triangle of Africa to the south, and swelled it into another world in contradistinction to that which they knew and inhabited themselves. It is this supposition which gives rise to the expressions of Manilius.

⁶¹ See Agathemeras, in Hudson's Geog. ⁶² Pom. Mela, lib. i. c. 1. See the map Min. cap. iv. Strabo, lib. i. p. 64. Ptol. itself in Gronovius. lib. i..

Altera pars orbis sub aquis jacet in via nobis,
 Ignotæque hominum gentes, nec transita regna
 Commune ex uno lumen ducentia sole,
 Diversasque umbras, levigque cadentia signa,
 Et dextros ortus cælo spectantia verso. ASTRON. lib. i.

And the same sentiment in Virgil.

Audiit et si quem tellus extrema refuso
 Submovet oceano, et si quem extenta plagarum
 Quatuor in medio dirimit plaga solis iniqui. ÆN. lib. vii. 226.

It is this supposition also which gave rise to the belief of circum-navigations which never took place; for Mr. Gosselin proves that the voyage of Eudoxus cuts through the centre of the great continent of Africa, and Hanno is carried to the Red Sea without passing the equator. This it is which extends the title of the Atlantick Ocean, to the east of Africa as well as to the west, and makes Juba commence the Atlantick from Mysylon. All this is natural, if the continent of Africa be curtailed at the twelfth degree of northern latitude, and the voyage shortened by about eighty degrees in extent.

But it may be proper to call the attention of the reader to the view of this sort of a world, as applicable to the Phenician expedition of Herodotus. A vessel sailing along the southern coast of such an Africa as this, has in theory the sun upon the right-hand of the navigators for three parts of the voyage, and this constitutes the circumstance as the grand occurrence of the expedition. But were the same vessel to run into latitude 34° south, the real latitude of the Cape, the space during which the sun would be on the right-hand,

hand, is a point in comparison of the other course, and the phenomenon would doubtless have been pointed out in other terms, as the quarter of the heavens, or the place of the luminary.

There is another particular in this map also well worthy of attention, which is the source of the Nile placed in the southern hemisphere, and compelled to run under the ocean, like another Alpheus, and rise again in Ethiopia; now this fable has its origin from one of two causes; for it was either known that this hypothesis cut Africa too short to afford a place for the sources of the Nile, which were carried to an indefinite distance south by the early geographers⁶¹, and therefore a situation south must be found beyond the ocean in the other hemisphere, or else it arose from the report of the Nile in the early part of its course, running through a sea with which it never mixes. This is a circumstance which is now known to take place on its passing through the Lake Tzina or Dembea, where Bruce assures us that the course of the stream across the lake is distinctly visible from the high land in the neighbourhood.

Nothing farther worthy of observation occurs in this map, but that it cuts short the peninsula of India as well as Africa, and places Taprobana or Ceylon as it appears in the tables of Ptolemy. It unites also the Caspian Sea with the ocean, and gives a circumambient ocean on the north, as navigable as on the south, part of which the Argonauts did navigate! and all but the whole was supposed to have been navigated, by Pliny. It was this supposition which brought the Seres on the north, almost as nearly in contact with the Caspian⁶² Sea, as Mosylon was with the Fortunate Isles on the south!

⁶¹ To 12° or 13° south by Ptolemy.

⁶² See the concluding pages of the Periplus.

how many obstacles has real navigation discovered, which fictitious navigators surmounted without a difficulty?

II. The Map of Cosmas⁶³

Is so poor a composition, and so wholly the conception of his own mind, that it would be utterly unworthy of notice were it not the original production of the monk himself. The veracity of Cosmas, both in regard to what he saw and heard, is respectable, as we shall shew hereafter in his account of Ceylon; but his hypothesis, as may be seen, makes the world a parallelogram with a circumambient ocean, and the rivers of Paradise flowing on the outside; while the vicissitude of day and night is not caused by the revolution of the earth or the heavens, but by the sun's disk being obscured by a mountain on the north. He also has a Caspian Sea that joins the ocean, and a Nile that runs under the ocean, springing from the Gihon of Paradise in another world. The ignorance of an individual is not astonishing in any age, but the ignorance of Cosmas is extraordinary in the sixth century, when we must suppose the writings of Ptolemy would have been known to a monk of Egypt, and when that monk resided some years within the tropick, and must have seen the sun on the north as well as on the south.

III. The Map of Al-Edrissi.

I owe the knowledge of this map to the kindness of Dr. White the Arabick Professor at Oxford; there are two Arabick⁶⁴ copies of

⁶³ See plate in the account of the Aduli-tick Inscription. of Pocock's, No. 375. Hejira, 906, A. D. 1500. It is from the last that this map is

⁶⁴ One of Graves's, No. 3837. Another taken.

Al-Edrissi in the Bodleian, and that from which the opposite map is taken is beautiful and adorned with maps for almost every chapter. This before us is a general one, curious because it is evidently founded upon the error of Ptolemy, which carries the coast of Africa round to the east, and forms a southern continent totally excluding the circumnavigation into the Atlantick Ocean. The learned Hartman supposes that Al-Edrissi's account goes as low as $26^{\circ} 20' 0''$ south, to the river Spirito Santo. It may be so, for Daguta is his last city, which is but three days sail from Gasta, and Gasta is but one from Komr, the Island of the Moon, or Madagascar. (See Hartman's Al-Edrissi, p. 113. et seqq.) This point and Wak Wak or Ouak Ouak seem to baffle explanation, and Hartman confesses he can find no room for the latter. But with all its fable, it is still the kingdom of the Zinguis, (Hartm. p. 106.) and if so, it must be Benomotapa, which lies inland, and which Al-Edrissi has ignorantly brought to the coast. It is, in short, the termination of knowledge, which, with Arabians as well as Greeks, is always fabulous, and is by some of their writers placed in the Mare tenebrosum, or Sea of China, (p. 107. Bakai another Arabian.)

That the Komr of Al-Edrissi, the Island of the Moon, is Madagascar I have no doubt; because in the maps which detail the coast, I found the continuation of this island opposite to the continent through several chapters, in all which parcels, Dr. White assured me the name of Komr was regularly repeated; and though Hartman is by this made to doubt concerning Saranda, Serendib, or Ceylon, (p. 116. et seqq.) there is no ground for hesitation, the error originates with Ptolemy, and the necessity of carrying round the lower part of Africa to the east, compels those who follow his hypothesis to throw

up

up Madagascar nearly opposite to Ceylon, to bring the Indus into the Gulph of Persia, and the Ganges over the head of Ceylon. Whether all these inconsistencies would have appeared as gross in detail as in the general map, I cannot say; my want of Oriental learning, I regretted, did not permit me to examine the MS. myself, in a satisfactory manner, and I had intruded too far on the assistance of the professor. To judge by Madagascar and the coast of Africa, I still think the search would repay any Orientalist who would pursue it; and when Sir William Ouseley has finished Ebn Haukel, what better scene for the employment of his superior talents than Al-Edrissi, whom we all quote from an imperfect translation, and whom we should know how to appreciate, if the drosses were once separated from his ore.

The course of the Nile is still more hyperbolical in this author than in Ptolemy whom he copies, but he has an inland Caspian as well as that author, and of a better form. To compensate this, however, he has his magnetick rocks which draw the iron out of vessels, an eastern fable as regularly at the limit of Oriental knowledge, as Anthiopophagi fixed the boundary of the Greeks; while his termination of the coast of Africa at Daguta wherever that may be fixed, proves that little more had been done by the Arabs of the twelfth century, towards prosecuting the discovery of the coast to the south, than by those whom the Greeks found there, or by the Greeks themselves.

The Arabick names of this map, now supplied by cyphers, have been translated by Captain Francklin of the Bengal Establishment, whose merit as an Oriental scholar is sufficiently established by his History of the Revolutions at Dehli, and who has repaid the instruction of his youth, with the cordiality of a friend.

Numbers and Names of the Chart from the Arabick, by
Captain Francklin.

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| No. 1. Mountains of the Moon, | No. 23. Belad Mufrada. |
| and sources of the Nile. | 24. Belad Nemaneh. |
| 2. Berbara. | 25. Al-Mulita u Sinhajeh. |
| 3. Al-Zung. | 26. Curan (Karooan of Gibbon). |
| 4. Sefala. | 27. Negroland. |
| 5. Al-Wak Wak. | 28. Al-Sous Nera. |
| 6. Serendeeb (Ceylon). | 29. Al-Mughrub Al-Am- |
| 7. Al-Comor (Madagascar). | keen. |
| 8. Al-Dasi. | 30. Afreekeea (Africa). |
| 9. Al-Yemen (Arabia Felix). | 31. Al-Hureed. |
| 10. Tehama. | 32. Seharee, Bereneek (or Desart of Berenicè). |
| 11. Al-Hejaz (Arabia De- ferta). | 33. Missur (Egypt). |
| 12. Al-Shujur. | 34. Al-Shâm (Syria). |
| 13. Al-Imama. | 35. Al-Irak. |
| 14. Al-Habesh (Ethiopia). | 36. Fars (Persia Proper). |
| 15. Al-Nuba (Nubia). | 37. Kirman (Carmania). |
| 16. Al-Tajdeen. | 38. Alfazeh. |
| 17. Al Bejah. | 39. Mughan. |
| 18. Al-Saueed (Upper Egypt). | 40. Al-Sunda. |
| 19. Afouahat. | 41. Al-Hind (India). |
| 20. Gowaz. | 42. Al-Seen (China). |
| 21. Kânum. | 43. Khorasan. |
| 22. Belad Al-Lemlum. | 44. Al-Beharus. |
| | 45. Azerbijan |

